

SIX NEW GENERA OF BRACONINAE FROM THE AFROTROPICAL REGION (HYMENOPTERA, BRACONIDAE)

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ABSTRACT

The new tribe Adeshini is defined for the genera *Adesha* Cameron, 1912, and *Adeshoides* gen. nov. (type-species: *A. asulcatus* sp. nov. from Senegal). The genera with a facial protuberance in the Braconinae (excluding the *Atanycolus* group with petiolate pedicellus) are keyed and (re)described. Three new genera from the Afrotropical region are described, viz., *Malagopsis* (type-species: *Plaxopsis grandidieri* Szépligeti, 1913), *Deltaphyma* (type-species: *D. horstoki* sp. nov. from South Africa), and *Zanzopsis* (type-species: *Plaxopsis liogaster* Szépligeti, 1913). *Bracon nigriceps* Brullé, 1846, is a new junior synonym of *Lasiophorus lanceolator* (Fabricius, 1804) and *Lasiophorus seyrigi* Granger, 1949, is synonymized with *Malagopsis grandidieri* (Szépligeti, 1913) comb. et syn. nov. The genus *Plaxopsis* Szépligeti, 1905, is removed from the synonymy with *Lasiophorus* Haliday, 1833, and a lectotype is designated for *Lasiophorus seyrigi* Granger, 1949, and *Plesiobracon carinatus* Cameron, 1903. Finally the *Plesiobracon* group is defined, the known genera are keyed and two new genera are described: *Carinibracon* (type-species: *C. danielssoni* sp. nov. from Senegal) and *Kenema* (type-species: *K. quickei* sp. nov. from Sierra Leone). *Odontogaster* Szépligeti, 1906, is a new junior synonym of *Soter* Saussure, 1892.

In this paper some recently discovered new genera of the Braconinae from the Afrotropical region are described, illustrated and keyed. Among these are two new genera collected during the Gambia-Senegal Expedition of the Lund University in 1977, kindly sent on loan by Dr. R. Danielsson (Lund). Both new genera have a sistergroup in the Oriental region as far as can be deduced from our limited knowledge of the genera of Braconidae. Dr. D. Quicke (Nottingham) kindly allowed me to describe a related new genus from Sierra Leone.

During my visits to the Berlin Museum (1979, 1982) I found several genera from the Afrotropical region which at present are included in the genus *Plaxopsis*. These genera are (re)described in this paper, together with a new genus from South Africa found in the collection of the Rijksmuseum van Natuurlijke Historie at Leiden. For the terminology used in this paper, see Van Achterberg, 1979: 242—249.

ADESHINI tribus nov.

Diagnosis. — Contains the only known Braconinae with vein CU1a of fore wing at same level as vein 2-CU1 (fig. 4) and vein CU1b of fore wing much longer than vein 3-CU1 (a synapomorphy within the Braconinae); scapus

truncate apically (fig. 3); mesoscutum at least sparsely setose; vein r-m of hind wing very short (fig. 4); propodeum with complete longitudinal carina (fig. 11); 1st tergite movably connected to 2nd tergite; 2nd and 3rd metasomal tergites with no antero-lateral diverging grooves (fig. 1).

Contains two genera: *Adesha* Cameron, 1912 (Oriental region) and *Adeshoides* gen. nov. (Afrotropical region). The biology is unknown.

KEY TO GENERA OF THE TRIBE ADESHINI NOV.

1. Mesoscutum with deep medio-posterior groove (fig. 146); laterope large and round (fig. 139); angle between veins 1-SR and C+SC+R of fore wing about 35° (fig. 140); head and mesosoma smooth; mesoscutum densely setose. *Adesha* Cameron
- Mesoscutum without medio-posterior groove (fig. 11); laterope (virtually) absent (fig. 1); angle between veins 1-SR and C+SC+R of fore wing about 65° (fig. 7); head and mesosoma coriaceous; mesoscutum sparsely setose, mainly near the notauli *Adeshoides* gen. nov.

Adeshoides gen. nov.

Type-species: *Adeshoides asulcatus* sp. nov.

Etymology: Latin for resembling the genus *Adesha*. Gender: masculine.

Diagnosis. — Head and mesosoma coriaceous; scapus rather robust (fig. 3); apex of antenna with no spine (fig. 5); eyes glabrous and not emarginate (fig. 9); malar suture absent; mesoscutum sparsely setose (mainly near the notauli) and without medio-posterior depression (fig. 11); pleural and mesosternal sutures smooth; antescutal depression virtually absent (fig. 1); metapleural flange absent; only anterior half of notauli impressed; scutellar sulcus narrow (fig. 11); metanotum medially with weak longitudinal carina (fig. 11); propodeal spiracle round, situated submedially (fig. 1); angle between veins 1-SR and C+SC+R of fore wing about 65° (fig. 7); vein 1-SR+M of fore wing straight; vein m-cu of fore wing far antefurcal and distinctly diverging from vein 1-M posteriorly (fig. 4); vein 1-R1 of fore wing much longer than pterostigma (fig. 4); hind wing setose basally; tarsal claws setose, with no lobe (fig. 6); ventral row of setae of hind tarsus indistinct; laterope (virtually) absent (fig. 1); dorso-lateral and dorsal (except basally: fig. 12) carinae of 1st tergite present; 2nd metasomal suture deep and smooth (fig. 12); 2nd tergite with no medio-basal area, with a weak medial carina and a pair of shallow parallel, sublateral grooves (fig. 12); 2nd-5th metasomal segments with no anterolateral grooves and with distinct sharp lateral crease (fig. 1).

Distribution. — Afrotropical: one species.

***Adeshoides asulcatus* sp. nov.**
(figs. 1–12)

Holotype, ♂, length of body 2.5 mm, of fore wing 2.2 mm.

Head. — Antennal segments 37, length of 3rd segment 1.3 times 4th segment, length of 3rd and 4th segments 2.7 and 2.0 times their width, respectively; penultimate segment of antenna 2× longer than wide (fig. 5); length of maxillary palp 0.7 times height of head; length of eye in dorsal view 2.8 times temple (fig. 8); temples gradually narrowed posteriorly; POL : Ø ocellus : OOL = 5 : 4 : 10; frons weakly convex, coriaceous, with weak medial groove; face and clypeus rather convex and shiny coriaceous; ventral margin of clypeus not differentiated; length of malar space 0.8 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.4 times its height; episternal scrobe linear and rather shallow; mesoscutal lobes and scutellum rather

flat and coriaceous; posterior face of propodeum rather differentiated and shorter than anterior face.

Wings. — Fore wing: $r : 3\text{-SR} : \text{SR1} = 5 : 13 : 35$; veins M+CU1, CU1, r, 3-SR, SR1 and 2-M distinctly wider than other veins; cu-a interstitial; $2\text{-SR} : 3\text{-SR} : r\text{-m} = 7 : 13 : 6$.

Legs. — Hind coxa smooth; length of femur, tibia and basitarsus of hind leg 4.6, 10.4, and 7 times their width, respectively; hind tibial spurs both 0.2 times hind basitarsus.

Metasoma. — Length of 1st tergite 0.8 times its apical width, its surface largely rugulose-coriaceous; dorsal carinae of 1st tergite nearly complete, but rather weak and not lamelliform (fig. 12); 2nd tergite coriaceous-rugulose; 3rd and 4th tergites shiny coriaceous; rest of metasoma smooth and depressed; 4th and 5th tergites with smooth, deep anterior transverse groove (fig. 1).

Colour. — Brownish-yellow; apical half of antenna and stemmaticum, dark brown; pterostigma and veins (rather dark) brown; wing membrane slightly infuscated.

Holotype in Entomological Museum, Lund: "Senegal, 3 km SSW Toubakouta, 10 km S Ziguinchor, 4.iii.1977, at light 19.00–22.00, Loc. No. 16, UTM 28PCJ 58 782", "Lund Univ. Syst. Dept. Sweden, Gambia/Senegal, Febr.-March 1977, Cederholm, Danielsson, Larsson, Mireström, Norling, Samuelson".

***Adesha* Cameron, 1912**

Cameron, 1912: 78; Shenefelt, 1978: 1430.

Type-species: *Adesha albolineata* Cameron, 1912 (monotypic). Gender: feminine.

Diagnosis. — Head and metasoma smooth; scapus rather robust (fig. 138); eyes glabrous and indistinctly emarginate (fig. 142); malar suture absent; mesoscutum densely setose and with deep medio-posterior groove (fig. 146); pleural and mesosternal sutures smooth; antescutal depression very narrow; metapleural flange small (fig. 139); anterior half of notauli deep and smooth, rest shallow or absent (fig. 146); scutellar sulcus wide and distinctly crenulate (fig. 146); metanotum with distinct medio-longitudinal carina (fig. 146); propodeal spiracle rather small, round, and behind middle of propodeum (fig. 139); angle between veins 1-SR and C+SR+R of fore wing about 35° (fig. 140); vein 1-SR+M of fore wing straight; vein m-cu of fore wing moderately antefurcal

and slightly diverging posteriorly from vein 1-M (fig. 141); tarsal claws setose, without lobe (fig. 143); ventral row of setae of hind tarsus distinct; lateropore large and round (fig. 139); dorso-lateral carinae of 1st tergite distinct; dorsal carinae on basal quarter of tergite, rest absent (fig. 147); 2nd metasomal suture deep and crenulate (fig. 147); 2nd tergite with narrow triangular and smooth medio-basal area, bordered by crenulate grooves, laterally with a pair of posteriorly (weakly) converging depressions (fig. 147); 2nd-5th tergites with sharp lateral crease and without antero-lateral grooves (fig. 139); ovipositor normal, with neither nodus nor teeth subapically.

Distribution. — Oriental: one species.

***Adesha albolineata* Cameron**
(figs. 138—147)

Cameron, 1912: 78; Shenefelt, 1978: 1431.

Holotype, ♀, length of body 4.2 mm, of fore wing 3.8 mm.

Head. — Antennal segments incomplete, 16 present, length of 3rd segment 1.5 times 4th segment, length of 3rd and 4th segments 3 and 2 times their width, respectively; length of maxillary palp 0.7 times height of head; length of eye in dorsal view 2.8 times temple; temples roundly narrowed posteriorly (fig. 145); POL : Ø ocellus = 7 : 8 : 19; frons slightly convex, largely smooth and with medial groove (fig. 142); face weakly convex and smooth; clypeus flat and smooth, its ventral margin not differentiated from clypeus, concave; length of malar space 0.8 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.7 times its height; side of pronotum smooth, except for the finely crenulate medial groove; mesopleuron smooth; episternal scrobe deep, medium-sized and round (fig. 139); mesoscutum rather convex, its middle lobe slightly impressed medially (fig. 146); scutellum weakly convex and somewhat pimply; propodeum largely smooth, with some short rugae near medial carina and its posterior surface not differentiated (fig. 146).

Wings. — Fore wing: r : 3-SR : SR1 = 5 : 10 : 38; veins of similar width; 1-CU1 : 2-CU1 = 1 : 17; 2-SR : 3-SR : r-m = 10 : 10 : 7.

Legs. — Hind coxa smooth and slender (fig. 139); length of femur, tibia and basitarsus of hind leg 4.1, 9.8, and 6.4 times their width, respectively; length of hind tibial spurs 0.2 and 0.3 times hind basitarsus.

Metasoma. — Length of 1st tergite 0.8 times

its apical width, its surface coarsely reticulate medially, rest smooth (fig. 147); 3rd tergite coarsely reticulate medially, as rest of metasoma (fig. 139); length of ovipositor sheath 0.20 times fore wing, widened apically; hypopygium medium-sized and truncate apically.

Colour. — Brownish-yellow; antenna, dorsal part of head largely, meso- and metasoma dorsally, mesosternum partly, ovipositor sheath, tarsi, patch on apex of hind tibia, hind femur dorsally, dark brown or black; metasoma laterally, and apex of 5th tergite yellowish; wing veins and pterostigma brown; wing membrane subhyaline.

Holotype in British Museum (Natural History), London: "Type", "Kuching, J. H." (= John Hewitt), "2.10", "P. Cameron Coll., 1914-110", "*Adesha albolineata* Cam., Type, Borneo" (in Cameron's handwriting).

KEY TO THE GENERA OF THE BRACONINAE WITH
FACIAL PROTUBERANCE (excluding the *Atanycolus*
group)

1. Head with a protuberance anteriorly (figs. 13, 23, 35, 84); if rather cariniform and small, then in dorsal view (short) semi-circularly protruding; (some males of *Magalopsis grandidieri* (Szépligeti) have no protuberance but face is (narrowly) depressed medially) 2
- Head without protuberance, at most clypeus with a scarcely protruding, medially straight (in dorsal view), fine, dorsal carina; (face without medio-dorsal depression) other Braconinae
2. Pedicellus in dorsal view cylindrical, not narrowed basally; scapus rounded subbasally (figs. 17, 32); inner aspect of scapus not excavated apically (fig. 38), except in *Deltaphyma* (fig. 56); length of fore tarsus less than 1.7 times fore tibia 3
- Pedicellus in dorsal view petiolate, distinctly narrowed basally; scapus rather angularly protruding subbasally; inner aspect of scapus deeply excavated medio-apically; length of fore tarsus 1.7—2 times fore tibia *Atanycolus* group
3. Middle of face with an irregularly incised, vertical lamella (fig. 13); antenna of ♀ widened apically and with a blunt apex (figs. 13, 14); marginal cell of fore wing short, far removed from wing apex (fig. 15); vein 1-SR of fore wing short (fig. 15); tibial spurs dorsally glabrous and

- ventrally setose. *Victoroviella* Tobias
- Middle of face without vertical lamella (figs. 23, 58, 60); antenna of ♀ not widened apically and with acute apex (figs. 24, 41); marginal cell of fore wing long, almost reaching wing apex (figs. 31, 70); vein 1-SR of fore wing medium-sized (figs. 31, 42, 59); tibial spurs evenly setose or nearly completely glabrous (at 50 ×) 4
4. Face with protruding carina and/or lamella (figs. 35, 52, 77); clypeus with ventral carina (figs. 49, 77); mesoscutum largely glabrous; hind spurs (partly) setose; medio-basal area of 2nd tergite robust (figs. 48, 65, 82); antero-lateral grooves of 3rd tergite (partly) crenulate (figs. 48, 93); (Afrotropical and South Palaearctic) 5
- Face with robust horn above clypeus (figs. 23, 26 of type species, in other species spoon-shaped or tuberculiform); clypeus without distinct ventral carina (fig. 23); mesoscutum completely setose; hind spurs almost completely glabrous; medio-basal area of 2nd tergite very slender (fig. 34); antero-lateral grooves of 3rd tergite smooth; (Neotropical) *Lasiophorus* Haliday
5. Upper half of face protruding (figs. 58, 75) or slightly concave (fig. 87); posterior half of 4th and 5th tergites flat (figs. 57, 84); 1st tergite usually without dorsal carinae (figs. 65, 82), if present then not lamelliform; vein 1r-m of hind wing straight (fig. 55); 2nd tergite with (sub)parallel depressions (figs. 65, 82, 93); vein 1-M of fore wing straight (figs. 55, 70, 91); 1st discal cell of fore wing less transverse (figs. 55, 91); lower facial protuberance of ♀ distinctly lamelliform or absent; (Continental Africa and South Palaearctic region) . . . 6
- Upper half of face deeply concave (figs. 47, 49); posterior half of 4th and 5th tergites strongly convex (fig. 35); 1st tergite with lamelliform dorsal carinae (fig. 48); vein 1r-m of hind wing curved (fig. 39); 2nd tergite with (incomplete) diverging antero-lateral grooves (fig. 48); vein 1-M of fore wing somewhat bent posteriorly (fig. 42); 1st discal cell of fore wing comparatively transverse (fig. 39); lower facial protuberance of ♀ sublamelliform and absent in ♂ and exceptionally in (small) ♀♀ (Malagasy) *Malagopsis* gen. nov.
6. Scapus truncate or at most moderately protruding ventrally, not beyond apex of pedicellus (figs. 69, 92); frons not or shallowly concave (figs. 74, 88); face with either a lamella (figs. 84, 87) or a W-shaped protuberance (figs. 75, 77); 2nd tergite with well-defined basal area (figs. 82, 93); 2nd tergite not projecting above 2nd suture (fig. 84); groove between eye and antennal socket rather shallow or absent (figs. 67, 84); mesoscutum anteriorly at least as high as the pronotum anteriorly (figs. 67, 84); scutellum often with a small pit (fig. 76) 7
- Scapus strongly protruding ventro-apically, well beyond apex of pedicellus (fig. 54); frons distinctly concave (fig. 62); face with protruding lamella and with a triangular protuberance above it (figs. 58, 60); 2nd tergite with ill-defined basal area (fig. 65); 2nd tergite medio-posteriorly projecting above 2nd suture (fig. 52); with a deep groove between eye and antennal socket (fig. 52); mesoscutum anteriorly lower than pronotum anteriorly (fig. 52); scutellum without small pit (fig. 63) *Delaphyma* gen. nov.
7. Face above clypeus with W-shaped protuberance (figs. 75, 77); marginal cell of hind wing strongly narrowed apically (fig. 70) *Zanzopsis* gen. nov.
- Face above clypeus without protuberance, only submedially with a more or less semicircular (often minute) lamella (fig. 87); marginal cell of hind wing (sub)-parallel-sided or slightly narrowed apically (fig. 91) *Plaxopsis* Szépligeti

Victoroviella Tobias, 1975

Tobias, 1975: 962—964.

Type-species: *Victoroviella deserticola* Tobias, 1975.

Diagnosis. — Scapus slightly longer ventrally than dorsally (fig. 13), curved, with a rounded anterior flange (figs. 13, 17) and subcylindrical; antenna of ♀ widened and rather compressed apically (fig. 13); apex of antenna blunt (fig. 14); face with longitudinal thin lamella, which has one deep medial and some smaller incisions (fig. 13), below this lamella a spoon-shaped, weakly concave protuberance (fig. 18); notauli absent; scutellar sulcus rather shallow and narrow; metanotum without carinae; vein 1-R1 (metacarp) of fore wing much shorter than pterostigma (fig. 15); fringe of wings very short; basal half of fore wing only sparsely setose; parastigma comparatively robust (fig. 15);

vein r-m of hind wing very short (fig. 15); marginal cell of hind wing narrowed apically; tibial spurs dorsally glabrous and ventrally setose; tarsal claws large (fig. 20), setose, and with no lobe; dorsal and dorso-lateral carinae of 1st tergite absent; 2nd suture of metasoma deep, smooth and straight (fig. 21); 2nd and basal half of 3rd tergite with sharp lateral crease; 2nd and 3rd tergites with a pair of smooth, diverging grooves (fig. 21); ovipositor normal (fig. 19), with small dorsal nodus and ventral teeth.

Distribution. — South Palaearctic: one species. The biology is unknown.

Victoroviella deserticola Tobias

(figs. 13—21)

Tobias, 1975: 962—964, figs. 1—3.

Paratype, ♀, length of body 6.6 mm, of fore wing 5.0 mm.

Head. — Antennal segments 34 (according to the original description 34—35), length of 3rd segment 1.6 times 4th segment, length of 3rd and 4th segment 2.1 and 1.3 times their width, respectively; length of penultimate segment 0.7 times its width (fig. 14); length of maxillary palp 0.6 times height of head; length of eye in dorsal view 1.3 times temple; temple subparallel (fig. 16) and long setose; POL : Ø ocellus : OOL = 8 : 3 : 12; frons flat and smooth; face with very long setae (fig. 13), remotely punctulate and weakly convex; clypeus depressed ventrally, its margin not differentiated; length of malar space 1.3 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.6 times its height; pronotal sides smooth (except for some punctures dorsally; fig. 13), and with a rather deep medial groove; mesopleuron smooth; episternal scrobe small, deep and round (fig. 13); mesoscutum and propodeum smooth; propodeal spiracle medium-sized, round, submedially situated (fig. 13).

Wings. — r : 3-SR : SR1 = 3 : 11 : 16; 1-SR+M straight; cu-a subinterstitial (fig. 15); 2-SR : 3-SR : r-m = 16 : 22 : 15; m-cu far antefurcal and slightly converging to 1-M posteriorly (fig. 15).

Legs. — Hind coxa smooth; length of femur, tibia and basitarsus of hind leg 2.8, 7.1 and 5.2 times their width, respectively; length of hind tibial spurs 0.4 and 0.5 times hind basitarsus; hind tibia with much longer setosity dorsally than ventrally; fore tibia with a row of five short spines.

Metasoma. — Length of 1st tergite 1.1 times

its apical width, its surface smooth (fig. 21); glymma completely absent; 2nd and 3rd tergites smooth; 2nd tergite with a pair of short, smooth and converging grooves medio-anteriorly (fig. 21); rest of metasoma smooth and rather depressed; length of ovipositor sheath 1.19 times fore wing; hypopygium large and acutely protruding medio-apically (fig. 13).

Colour. — Brownish-yellow; apex of mandibles, apex of antenna, wing veins partly, and pterostigma medio-anteriorly, dark brown; ovipositor sheath black; pronotum dorsally, anterior subalar protuberance, middle of mesopleuron, mesonotum medially, scapus and pedicellus anteriorly, and face, largely whitish; wing membrane hyaline.

Paratype in the Zoological Institute, Leningrad: "22/V. (19) 65), ksf. Kirpili, na strarinkus, T. Tokgaev", "Paratypus *Victoroviella deserticola* Tobias". Holotype in the Zoological Museum at Moscow from Turkmenia (Repetek), not examined.

Note. Not closely related to the other genera treated in this paper because of the peculiar shaped antenna, the longitudinal thin lamella of face, the shape of the scapus and the short marginal cell of fore wing.

Lasiophorus Haliday, 1833

Haliday, 1833: 213; Fahringer, 1930: 19 (key); Shenefelt, 1978: 1691—1694.

Type-species: *Bracon lanceolator* Fabricius, 1804 (monotypy).

Diagnosis. — Scapus very slender (fig. 23), widened apically and ventrally distinctly longer than dorsally (fig. 32); antennal sockets (toruli) protruding (figs. 23, 26); apex of antenna with short, not distinctly differentiated spine (fig. 35); face medially (just above clypeus) with a large, thick and rugose horn (figs. 23, 26, 27), or with spoon-shaped or tuberculiform protuberance; clypeus with no ventral carina; notauli absent; mesoscutum completely setose; scutellar sulcus narrow and finely crenulate (fig. 28); metanotum with no medial carina; vein 1-R1 of fore wing much longer than pterostigma (fig. 31; as in the other genera); vein m-cu of fore wing shortly antefurcal, converging to vein 1-M posteriorly (fig. 31); vein 1-SR+M of fore wing straight, but basally weakly curved; vein r-m of hind wing long and straight (fig. 31); marginal cell of hind wing subparallel-sided apically (fig. 31); hind tibial spurs with indistinct

and very short setosity, almost completely glabrous (fig. 29); tarsal claws setose and with no lobe (fig. 33); hind tarsus with ventral row of setae; dorso-lateral carinae of 1st tergite distinct and complete; dorsal carinae of 1st tergite absent (fig. 34); 2nd tergite anteriorly depressed and with a medial ridge instead of mediobasal area (fig. 34); antero-lateral grooves of 3rd and 4th tergites smooth and shallow, not reaching lateral margin of tergite (fig. 23); 2nd suture of metasoma distinct and smooth (fig. 34); no segments (except 1st) with sharp lateral crease; ovipositor normal (fig. 22), with small dorsal nodus and small ventral teeth.

Distribution. — Neotropical: four species. The biology is unknown.

***Lasiophorus lanceolator* (Fabricius)**
(figs. 22—34)

Bracon lanceolator Fabricius, 1804: 106.

Lasiophorus lanceolator; Shenefelt, 1978: 1692; Van Achterberg, 1982: 137 (lectotype designation).

Bracon nigriceps Brullé, 1846, 334—335. **Syn. nov.**

Lasiophorus nigriceps; Shenefelt, 1978: 1692—1693.

Lectotype, ♀, length of body 16.2 mm, length of fore wing 14.5 mm.

Head. — Antennal segments 73, length of 3rd 1.7 times 4th segment, length of 3rd and 4th segments 2.2 and 1.3 times their width, respectively; penultimate segment of antenna 1.2 times as long as wide; length of maxillary palp 0.9 times height of head; temples weakly narrowed posteriorly (fig. 27); POL : Ø of ocellus : OOL = 4 : 5 : 10; frons laterally flat, but medially narrowly depressed (fig. 27); face apart from the horn, rather concave, coriaceous, rather mat (fig. 26); length of malar space 0.9 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.7 times its height; pronotal sides smooth, except for some punctulation (fig. 23); meso- and metapleuron punctulate; episternal scrobe absent, except for an indistinct remnant; scutellar sulcus narrow and shallowly crenulate (fig. 28); mesoscutum and scutellum sparsely punctulate (fig. 28); surface of propodeum punctulate; propodeal spiracle elliptical, rather large and situated behind middle of propodeum (fig. 23).

Wings. — Fore wing: angle between 1-SR and C+SC+R about 35° (fig. 31); r : 3-SR : SR1 = 8 : 43 : 58; cu-a postfurcal, long; 1-CU1 : 2-CU1 = 1 : 20; 2-SR : 3-SR : r-m = 19 : 43 : 17; r-m sinuate (fig. 31).

Legs. — Hind coxa punctulate; length of fe-

mur, tibia, and basitarsus of hind leg 4.6, 12.9, and 8.6 times their width, respectively; length of hind tibial spurs 0.35 and 0.5 times hind basitarsus; fore tibia with many spines (fig. 30).

Metasoma. — Length of 1st tergite 1.7 times its apical width, its surface mainly smooth, punctulate medially and sublateral grooves crenulate anteriorly (fig. 34); glymma present, shallow (fig. 23); metasoma smooth behind the 1st tergite, rather compressed; length of ovipositor sheath 2.08 times fore wing; hypopygium very large and truncate apically (fig. 23).

Colour. — Yellowish-brown; head, antenna, propleura, coxae partly, hind leg (except trochanters partly, base and apex of femur, and basal half of tibia), 5th—7th tergites and ovipositor sheath dark brown or blackish; palpi partly infuscated; wing membrane yellowish, but fore wing basally (shortly), apically and a band near pterostigma, dark brown (fig. 31); parastigma and basal half of pterostigma, dark brown, but rest of pterostigma (light) brown.

Lectotype in the Copenhagen Museum: "Type", "Essequibo, Smidt, Mus: de Sehestedt, *Bracon lanceolator* Fabr." (Essequibo is a river in Guyana). Paralectotypes: 2 ♀, very similar to lectotype. In the Rijksmuseum van Natuurlijke Historie at Leiden are 11 ♀ and 1 ♂. The male from Surinam (Avanavero, 25.viii.1973, D. C. Geijskes) has the facial horn about half the size of the ♀ and undivided apically, body more densely setose, and base of fore wing yellowish. The females originate from Trinidad (Tacarigua, 500—600 m, 10.ix.1953, G. F. Mees) and Surinam (Republiek, 23.xi.1963, D. C. Geijskes and 31.iii.1963, P. H. van Doesburg; Kabalebo River, near Avanavero Falls, 14.ix.1965, and Brownsberg, 450—480 m, 16.xii.1973, both G. F. Mees; Mapane area, camp 8, 27 & 28.v.1963, and Zanderij, 21—25.vii.1963, both J. van der Vecht; Matta, 1.viii.1945; Wilhelminagebergte, 16.viii.1943; and Moengotapoe, 24.ix.1948, all D. C. Geijskes).

Variation. — Length of fore wing 13.8—17.8 mm, of body 15.8—19.5 mm; length of ovipositor sheath 1.84—2.09 times fore wing; antennal segments 73—81. The known distribution is from Panama to Peru and Brazil.

Note. The statement of Fabricius (1804: 106): "Aculeus excertus niger, longitudine corporis" leads to the misinterpretation of *lanceolator* by Fahringer. Actually the ovipositor is somewhat less than twice length of the body. A syntype of *Bracon nigriceps* Brullé, 1846, in the Paris Mu-

seum has been examined. Another specimen may be present in the Spinola Collection (Turin) via Audinet-Serville.

KEY TO SPECIES OF THE GENUS *Lasiophorus*

HALIDAY

(after Fahringer, 1930, modified)

1. Length of ovipositor sheath about twice length of fore wing; wings banded 2
- Length of ovipositor sheath less than length of fore wing, about as long as metasoma; wings not clearly banded 3
2. Middle of 1st—4th tergites black; (Guyana); (dark form of *lanceolator*?) *fortispinus* Cameron
- Middle of 1st—4th tergites yellowish; (Panama to Peru and Brazil) *lanceolator* (Fabricius)
3. Pterostigma dark brown or blackish; facial protuberance spoon-shaped, concave medially and truncate apically, regular; apex of metasoma blackish; (Ecuador) *semirufus* Fahringer
- Pterostigma yellowish with its base and apex blackish; facial protuberance irregular tuberculiform; apex of metasoma yellowish; (Joinville Isl.) *polaris* Fahringer

Malagopsis gen. nov.

Type-species: *Plaxopsis grandidieri* Szépligeti, 1913.

Etymology: from the combination of "Malagasy" and "Plaxopsis" because this genus is close to *Plaxopsis* and is only known from Malagasy. Gender: masculine.

Diagnosis. — Scapus medium-sized, ventrally strongly protruding (fig. 37) and inner aspect of its apex not emarginate (fig. 38); apex of antenna with short spine (fig. 41); face with a pair of large protuberances in front of antennal sockets (fig. 44); face very deeply concave medially, ventrally bordered by a sublamelliform semicircular protuberance (absent in ♂ and exceptionally in small ♀). Protuberance medially with a carina connected to a medial carina of the face (figs. 47, 49, 50); clypeus with a ventral carina; notauli shallowly impressed anteriorly (fig. 45); scutellar sulcus narrow and shallow; scutellum with no pit; metanotum with no medial carina; vein cu-a of fore wing slightly postfurcal; vein 1-M of fore wing somewhat bent posteriorly (fig. 42); vein m-cu of fore wing shortly ante-furcal, slightly converging to vein 1-M posteriorly (fig. 39); vein 1-SR+M of fore wing bent basally; vein 1r-m of hind wing distinctly

curved (fig. 39); marginal cell of hind wing parallel-sided subapically; tarsal claws basally pectinate and with no lobe (fig. 46); hind tarsus with ventral row of setae; hind spurs setose; dorso-lateral carinae of 1st tergite lamelliform and complete (fig. 35); dorsal carinae of 1st tergite complete in posterior two-thirds of tergite, lamelliform and enclosing a long subpentagonal elevated area (fig. 48); 2nd tergite with smooth subtriangular medio-basal area, surrounded by sparsely crenulate grooves and with wide, posteriorly diverging antero-lateral grooves (fig. 48); 2nd suture obsolete laterally, rather deep and strongly crenulate medially (fig. 48); 3rd tergite with incomplete antero-lateral grooves; 2nd and 3rd tergites with sharp lateral crease; 4th and 5th tergites strongly convex (fig. 35); ovipositor with normal apex, with small nodus and teeth.

Distribution. — Afrotropical (Malagasy): one species. Parasites of Anthribidae (Coleoptera).

Malagopsis grandidieri

(Szépligeti) comb. nov.

(figs. 35—50)

Plaxopsis grandidieri Szépligeti, 1913: 419.

Lasiophorus grandidieri; Shenefelt, 1978: 1691.

Lasiophorus seyrigi Granger, 1949: 34—36, fig. 32; Shenefelt, 1978: 1694. Syn. nov.

Holotype, ♀, length of body 11.9 mm, of fore wing 10.5 mm.

Head. — Antennal segments 64, length of 3rd segment 1.4 times 4th segment, length of 3rd and 4th segments 1.7 and 1.2 times their width, respectively; penultimate segment of antenna 1.3 times its width; length of maxillary palp 0.8 times height of head; groove between eye and antennal socket wide and rather deep (figs. 35, 47); eye slightly emarginate (fig. 47); length of eye in dorsal view 1.4 times temple; temples somewhat narrowed posteriorly (fig. 44); POL : Ø ocellus : OOL = 4 : 3 : 8; frons weakly concave, with shallow medial groove (fig. 44); face convex laterally, coriaceous and depressed beside clypeus (fig. 47); length of malar space equal to basal width of mandible; malar suture distinct and narrow (fig. 35).

Mesosoma. — Length of mesosoma 1.4 times its height; pronotal sides and mesopleuron smooth; episternal scrobe small, droplet-shaped (fig. 35); metapleuron punctulate; mesoscutum smooth and largely glabrous; surface of propodeum punctulate laterally, rest smooth; propodeal spiracle rather large, wide elliptical and sit-

uated just behind middle of propodeum.

Wings. — Fore wing: angle between veins 1-SR and C+SC+R of fore wing 58° (fig. 42); $r : 3-SR : SR1 = 5 : 23 : 35$; $1-CU1 : 2-CU1 = 1 : 38$; $2-SR : 3-SR : r-m = 10 : 23 : 10$.

Legs. — Hind coxa smooth; length of femur, tibia and basitarsus of hind leg 2.9, 7.8 and 4.0 times their width, respectively; length of hind spurs 0.20 and 0.25 times hind basitarsus.

Metasoma. — Length of 1st tergite 0.9 times its apical width, its surface largely smooth, medially with some wide punctures and weakly concave, and laterally with some coarse crenulae (fig. 48); glymma shallow and crenulate (fig. 35); metasoma behind 2nd tergite medially smooth, and 3rd–6th tergites punctate latero-posteriorly (fig. 35); length of ovipositor sheath 0.59 times fore wing; hypopygium large, and acute apically (fig. 35).

Colour. — Yellowish-brown; head (except black middle of facial depression and of lamella, stemmaticum, and area behind it), and pronotal sides dorso-posteriorly, ivory; wing membrane brownish; pterostigma and veins rather dark brown.

Holotype in Zoologisches Museum Berlin: "S. W. Madagascar, Tulear, Voeltzkow, S., 1.1904", "*Bracon grandidieri* Sauss., det. Dr. Enderlein" (incorrect!), "Type", "*Plaxopsis grandidieri* n. sp." (in Szépligeti's handwriting). Syntype-series of *Malagopsis seyrigi* (Granger, 1949) consists of 15 ♀ and 1 ♂. The ♀ from Diego ("Madagascar, Diego, xi.29, A. Seyrig") in the Muséum National d'Histoire Naturelle at Paris is here designated as lectotype. Judging from this series of *grandidieri* there is considerable allometric variation in the size of the facial lamella and flanges, and the punctuation of the 5th and 6th tergites. The dark patch on the pronotum may be distinct but (especially larger) specimens have this patch absent or obsolescent.

Variation. — Length of fore wing 7.9–10.5 mm (♂: 7.9 mm); length of body 8.8–11.9 mm (♂: 8.8 mm); length of ovipositor sheath 0.59–0.73 times fore wing; antennal segments 57–66 (♂: 55); facial depression deep or moderately depressed (always distinct in ♀, shallow in ♂); facial protuberances large to nearly absent (absent in ♂); 3rd sternite completely yellowish or with blackish patch, sometimes also 2nd and 4th sternites with such patch.

Deltaphyma gen. nov.

Type-species: *Deltaphyma horstoki* sp. nov.

Etymology: from "delta" (Greek capital letter, shaped like a triangle) and "phyma" (Greek for "growth") because of the peculiar triangular protuberance of the face. Gender: neuter.

Diagnosis. — Scapus robust, ventrally much longer than dorsally, surpassing pedicellus (fig. 54) and inner aspect of scapus distinctly emarginate (fig. 56); face convex, with spoon-shaped lamella, with above it a triangular lamella, with its corners (especially the top corner) longer than its sides (figs. 58, 60); clypeus without carinae; with deep groove from eye to antennal socket (fig. 52); notauli complete, shallow (fig. 63); scutellar sulcus very shallow and narrow, nearly smooth (fig. 63); scutellum with no pit; metanotum without carina; vein cu-a of fore wing subinterstitial; vein 1-M of fore wing straight (fig. 55); vein m-cu of fore wing shortly antefurcal, slightly converging to vein 1-M posteriorly; vein 1-SR+M of fore wing evenly curved (fig. 59); vein 1r-m of hind wing straight (fig. 55); marginal cell of hind wing parallel-sided apically; tarsal claws yellowish pectinate basally, without lobe (fig. 66); hind femur densely setose dorsally, ventrally sparsely, without distinct flange apically (fig. 64); hind tarsus without distinct ventral row of setae; hind spurs setose; dorso-lateral carinae of 1st tergite complete and lamelliform behind the spiracle, absent in front of spiracle (figs. 52, 65); dorsal carinae of 1st tergite completely absent (fig. 65); 2nd tergite with droplet-shaped, coriaceous medio-basal area, ending posteriorly in distinct keel, without distinct antero-lateral area (fig. 65); 2nd tergite projecting over 2nd suture (fig. 52); 2nd suture rather shallow and only medially crenulate (fig. 65); 3rd and 4th tergites with sharp lateral crease; 4th and 5th tergites rather flat (fig. 52); ovipositor normal, with small nodus and teeth (fig. 57).

Distribution. — Afrotropical: one species. The biology is unknown.

Deltaphyma horstoki sp. nov.

(figs. 51–66)

Holotype, ♀, length of body 18 mm, of fore wing 14.5 mm.

Head. — Antennal segments incomplete, 51, length of 3rd segment 1.7 times 4th segment, length of 3rd and 4th segments 2.2 and 1.3 times their width, respectively; length of maxillary palp equal to height of head; eyes slightly emarginate (fig. 61); length of eye in dorsal view 1.1 times temple; temple subparallel-sided behind eyes (fig. 62); POL : Ø ocellus : OOL =

3 : 5 : 15; frons smooth, distinctly concave behind antennal sockets, medially with low evaluation (fig. 62); face finely transversely striate, with some coarse striae; malar suture distinct; length of malar space 0.8 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.8 times its height; side of pronotum and mesopleuron smooth; episternal scrobe small and pit-shaped (fig. 52); metapleuron smooth; mesoscutal lobes largely glabrous and smooth; surface of propodeum punctulate laterally, rest smooth; propodeal spiracle medium-sized, rather elliptical and just behind middle of propodeum.

Wings. — Fore wing: angle between 1-SR and C+SC+R 55° (fig. 59); $r : 3\text{-SR} : \text{SR1} = 6 : 22 : 27$; $2\text{-SR} : 3\text{-SR} : r\text{-m} = 9 : 22 : 10$.

Legs. — Hind coxa smooth; length of femur, tibia and basitarsus of hind leg 3.9, 9.9 and 6.6 times its width, respectively; length of spurs of hind tibia 0.3 and 0.4 times hind basitarsus.

Metasoma. — Length of 1st tergite 1.2 times its apical width, its surface coriaceous at medial elevation, rest smooth; medial area of 2nd tergite surrounded by some rugae, rest smooth (fig. 65); 3rd and 4th tergites distinctly striate mediobasally, rest of metasoma smooth (fig. 52); length of ovipositor sheath 0.6 times fore wing; hypopygium large and acute apically.

Colour. — Brownish-yellow; antenna, stemmaticum largely, metasoma behind 1st tergite (but medio-basal area of 2nd tergite yellowish), ovipositor sheath, middle telotarsus, hind tibia, spurs, and hind tarsus, blackish; basal third of wings, pterostigma (except its darkbrown apex), patch below pterostigma and near vein $r\text{-m}$ of fore wing, more or less yellowish; rest of wings dark brown.

Holotype in the Rijksmuseum van Natuurlijke Historie at Leiden: "Horstok, Pr. b. Sp. (= Cape Town)", "Museum Leiden, *Bracon servilei* Brullé" (incorrect!).

Note. This species is named after its collector, Dr. H. B. van Horstok, a physician who collected for the Leiden Museum in South Africa during the period 1825—1835 († ca. 1838).

Zanzopsis gen. nov.

Type-species: *Plaxopsis liogaster* Szépligeti, 1913.

Etymology: from a combination of "Zanzibar" and "Plaxopsis", because the type species originates from Zanzibar and is closely related to the genus *Plaxopsis*. Gender: masculine.

Diagnosis. — Scapus rather slender (fig. 67), ventrally slightly longer than dorsally (fig. 69) and its inner aspect not emarginate apically; apex of antenna without spine, acute and setose (fig. 81); face with large medial protuberance, surmounted by a W-shaped carina and next to protuberance somewhat depressed (figs. 75, 77); dorsal carina of clypeus nearly complete (fig. 75); clypeus ventrally cariniform (fig. 77); groove from eye to antennal sockets shallow and narrow (fig. 67); notauli anteriorly shallowly impressed, rest absent (fig. 76); scutellar sulcus narrow and distinctly crenulate (fig. 76); scutellum with minute pit medio-anteriorly; metanotum with very short medial carina (fig. 76); vein $cu\text{-a}$ of fore wing postfurcal (fig. 70); vein 1-M of fore wing straight; vein $m\text{-cu}$ of fore wing antefurcal, slightly converging to vein 1-M posteriorly (fig. 70); vein 1-SR+M of fore wing distinctly bent subbasally (fig. 71); vein $1r\text{-m}$ of hind wing straight; marginal cell of hind wing strongly narrowed apically (fig. 70); tarsal claws basally pectinate, without lobe (fig. 78); hind femur dorsally densely and ventrally sparsely setose, without apical flange (fig. 79); hind tarsus without ventral row of setae; hind spurs sparsely setose; dorso-lateral carinae of 1st tergite distinct behind spiracles, lamelliform, in front of spiracles absent (figs. 67, 82); dorsal carinae of 1st tergite absent, except for a weak basal elevation (fig. 82); 2nd tergite not projecting above 2nd suture (fig. 67), without antero-lateral grooves (only depressed sublaterally), and with smooth medio-basal triangular area surrounded by a crenulate depression (fig. 82); 2nd suture deep, completely and coarsely crenulate (fig. 82); 3rd and 4th tergites with crenulate antero-lateral grooves (fig. 67); 2nd and 3rd tergites with sharp lateral crease; 4th and 5th tergites rather flat (fig. 67); ovipositor normal, with minute nodus and distinct teeth (fig. 73).

Distribution. — Afrotropical and South Palaearctic (N. Africa): contains at least the following five species of which the type has been examined: *Zanzopsis liogaster* (Szépligeti, 1913), *Z. levis* (Szépligeti, 1914), *Z. pulchripennis* (Szépligeti, 1911), *Z. buettneri* (Szépligeti, 1914), and *Z. maculiceps* (Szépligeti, 1914). The biology is unknown.

Zanzopsis liogaster (Szépligeti) comb. nov. (figs. 67—82)

Plaxopsis liogaster Szépligeti, 1913: 419.

Lasiophorus liogaster; Shenefelt, 1978: 1692.

Holotype, ♀, length of body 15.3 mm, of fore wing 14.7 mm.

Head. — Antennal segments 74, length of 3rd segment 1.5 times 4th segment, length of 3rd and 4th segments 1.5 and 1.0 times their width, respectively, penultimate segment 1.2 times its width (fig. 81); length of eye in dorsal view 1.3 times temple; temple parallel-sided (fig. 74); POL : Ø ocellus : OOL = 4 : 5 : 14; frons flat, but shallowly concave near medial groove; face coriaceous and with some carinae (fig. 80); malar suture narrow; length of malar space 1.3 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.7 times its height; side of pronotum smooth and with medial groove; mesopleuron smooth, except for some punctulation ventrally; episternal scrobe shallow and narrow (fig. 67); metapleuron punctulate; mesoscutal lobes only setose near notauli, smooth, and convex; surface of propodeum punctulate, but smooth medially; propodeal spiracle nearly round, rather large and just behind middle of propodeum.

Wings. — Fore wing; angle between 1-SR and C+SC+R of fore wing 58° (fig. 71); r : 3-SR : SR1 = 6 : 25 : 22; 1-CU1 : 2-CU1 = 2 : 27; 2-SR : 3-SR : r-m = 10 : 25 : 13.

Legs. — Hind coxa smooth; length of femur, tibia and hind basitarsus of hind leg 3.4, 9.8, and 4.9 times their width, respectively; length of hind tibial spurs 0.3 and 0.4 times hind basitarsus.

Metasoma. — Length of 1st tergite 1.1 times its apical width, surface smooth, medially with a small, shallow depression with short carina (fig. 82); glymma narrow anteriorly (fig. 67); 2nd tergite smooth, except near basal area; 4th tergite crenulate anteriorly, rest of metasoma smooth (fig. 67); length of ovipositor sheath 0.78 times fore wing; hypopygium large, apically acute (fig. 67).

Colour. — Brownish-yellow; antenna, hind tibia and tarsus, and ovipositor sheath, blackish; metasoma and fore telotarsus, brown; middle telotarsus dark brown; basal third of wings, basal half of pterostigma, patch below pterostigma, area near vein r-m and below vein 2-SR+M of fore wing, yellowish; rest of pterostigma and wing membrane, dark brown.

Holotype in Museum Berlin: "Sansibar, C.

W. Schmidt", "Type", "*Plaxopsis liogaster* n. sp." (in Szépligeti's handwriting).

Plaxopsis Szépligeti, 1905

Szépligeti, 1905: 1; Fahringer, 1931: 336 (key); Shenefelt, 1978: 1691 (as synonym of *Lasiophorus*).

Type-species: *Plaxopsis sjoestedti* Szépligeti, 1905 (monotypic). Gender: masculine.

Diagnosis. — Scapus medium-sized (fig. 84), in dorsal view about twice its width, apically truncate, not protruding ventrally (fig. 92) and inner aspect of apex not emarginate; face with pair of submedial depressions and near protuberance (rather) depressed (fig. 87); between clypeus and face with a large, lamelliform, spoonshaped protuberance, which is concave ventrally (figs. 84, 87) and sometimes with horn situated on it; clypeus with ventral carina; no distinct groove between eye and antennal socket; notauli shallow, but absent apically (fig. 89); scutellar sulcus rather wide and coarsely crenulate (fig. 89); scutellum with pit medio-basally; metanotum with short carina medially; vein cu-a of fore wing slightly postfurcal (fig. 91); vein 1-M of fore wing straight; vein m-cu of fore wing shortly antefurcal, distinctly converging to vein 1-M posteriorly (fig. 91); vein 1-SR+M of fore wing distinctly bent basally (fig. 91); vein 1r-m of hind wing straight; marginal cell of hind wing (sub)parallel-sided apically or slightly narrowed, only medially distinctly narrowed (fig. 91); tarsal claws setose (fig. 85); hind femur without flange apically, dorsally distinctly and ventrally sparsely setose (fig. 90); hind tarsus with ventral row of setae; hind spurs normally setose; dorso-lateral carinae complete (fig. 84); dorsal carinae of 1st tergite absent (fig. 93); 2nd tergite with smooth, subtriangular area medio-anteriorly, with pair of sublongitudinal grooves laterally and with pair of small smooth triangular areas anteriorly (fig. 93); 2nd tergite not projecting above 2nd suture; 2nd suture deep and coarsely crenulate; 3rd tergite with pair of nearly complete, crenulate antero-lateral grooves (fig. 93); 4th and 5th tergites rather flat, with incomplete antero-lateral grooves (fig. 84); ovipositor normal, with subapical nodus and with small teeth ventrally.

Distribution. — Afrotropical and South Pal-

aearectic (N. Africa): moderately sized genus. The biology is unknown.

Plaxopsis sjoestedti Szépligeti
(figs. 83—93)

Plaxopsis Sjöstedti Szépligeti, 1905: 1—3, fig. 1.
Lasiophorus sjoestedti; Shenefelt, 1978: 1694.

Holotype, ♀, length of body 16.1 mm, of fore wing 16.2 mm.

Head. — Antennal segments 64 (apical segments missing), length of 3rd segment 1.5 times 4th segment, length of 3rd and 4th segments 1.6 and 1.1 times their width, respectively; length of maxillary palp equal to height of head; length of eye in dorsal view 1.5 times temple; POL : Ø ocellus : OOL = 3 : 3 : 11; frons weakly concave; face smooth; clypeus largely flat and smooth; malar suture shallow; length of malar space 0.9 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.7 times its height; side of pronotum and mesopleuron smooth; mesoscutal lobes largely glabrous, smooth and rather convex; surface of propodeum smooth, posteriorly rather depressed (fig. 93); propodeal spiracle rather large, subelliptical and at middle of propodeum (fig. 84).

Wings. — Fore wing: angle between 1-SR and C+SC+R 56° (fig. 91); $r : 3\text{-SR} : \text{SR1} = 9 : 50 : 51$; $1\text{-CU1} : 2\text{-CU1} = 1 : 12$; $2\text{-SR} : 3\text{-SR} : r\text{-m} = 24 : 50 : 22$.

Legs. — Hind coxa indistinctly punctulate; hind and fore claws missing; length of femur, tibia, and basitarsus of hind leg 4.3, 10.8, and 6.1 times their width, respectively; length of spurs of hind tibia 0.3 and 0.4 times hind basitarsus.

Metasoma. — Length of 1st tergite 1.7 times its apical width, smooth (fig. 93); glymma narrow (fig. 84); 2nd tergite (except basal area) striate (fig. 93); rest of metasoma smooth; length of ovipositor sheath 0.84 times fore wing; hypopygium large and apically acute (fig. 84).

Colour. — Dark reddish-brown; head, palpi, apex of antenna, prothorax, metasoma ventrally (but posteriorly brownish) and 9th tergite, yellowish; wing membrane dark brown, but fore wing with subapical yellowish, incomplete band and below pterostigma with a small light area (fig. 91).

Holotype in the Stockholm Museum: "Camerun", "Sjöstedt", "Plaxopsis Sjöstedti n.g. n. sp." (in Szépligeti's handwriting).

Plesiobracon GROUP

The *Plesiobracon* group contains three genera known to me, which have the 1st tergite of the metasoma movably joined to the 2nd tergite, with strong and complete dorso-lateral carinae, the mesoscutum rather evenly setose and at the same time the propodeum with a strong and complete medio-longitudinal carina, the scapus is (sub)truncate apically and ovoid (figs. 97, 113), the clypeus has no dorsal carina, the angle between veins 1-SR and C+SC+R of fore wing more than 60°, vein cu-a of fore wing slightly postfurcal (figs. 98, 114), the laterope is absent, and the 2nd tergite has a pair of sublateral, converging or short longitudinal grooves (figs. 109, 121). The biology is unknown.

KEY TO GENERA OF THE *Plesiobracon* GROUP

1. First tergite without dorsal carinae (fig. 137); posterior margin of hind wing (but sometimes hardly) concave subbasally and shorter setose than surrounding fringe (fig. 136); head strongly constricted behind eyes (fig. 132); vein cu-a of hind wing reclinuous (fig. 136); (Indo-Australian) *Plesiobracon* Cameron
- First tergite with strong, united dorsal carinae (figs. 109, 121); posterior margin of hind wing about straight subbasally and evenly setose (figs. 104, 114); head rounded posteriorly (fig. 107, 117); vein cu-a of hind wing (nearly) straight (figs. 98, 114); (Afrotropical) 2
2. Medial length of 5th tergite ca. 0.8 times medial length of 4th tergite behind basal depression (fig. 95); vein 2-SR of fore wing straight (fig. 98); 5th tergite straight latero-apically (fig. 95); antescutal depression present (fig. 95); propleuron without posterior flange (fig. 95); 2nd tergite with small medio-basal area (fig. 109); mesoscutum punctulate (fig. 108); propodeal spiracle situated submedially at propodeum (fig. 95); 4th tergite more or less protruding medio-apically; 2nd submarginal cell of fore wing slender (fig. 98) ... *Carinibracon* gen. nov.
- Medial length of 5th tergite (behind basal depression) 1.3—1.5 times medial length of 4th tergite (fig. 110); veins 2-SR of fore wing (rather) sinuate (fig. 114); 5th tergite oblique latero-apically (fig. 110); antescutal depression absent (fig. 110); propleuron with small posterior flange (fig. 110); 2nd

tergite without medio-basal area (fig. 121); mesoscutum finely rugose (fig. 116); propodeal spiracle situated in front of middle of propodeum (fig. 110); 4th tergite straight medio-apically (fig. 122); 2nd submarginal cell of fore wing robust (fig. 114) *Kenema* gen. nov.

Plesiobracon Cameron, 1903

Cameron, 1903: 123; Shenefelt, 1978: 1717.

Type-species: *Plesiobracon carinatus* Cameron, 1903 (monotypic). Gender: masculine.

Diagnosis. — Head strongly constricted behind eyes (fig. 132); apex of antenna with spine (fig. 130); ventral margin of clypeus cariniform and protruding (fig. 125); propleuron without posterior flange (fig. 123); anterior half of notauli distinct, smooth, rest absent (fig. 133); mesoscutum only laterally punctulate; scutellar sulcus deep, rather wide and distinctly crenulate (fig. 133); metanotum with some rugae medially (fig. 133); propodeal spiracle medium-sized, nearly round and behind middle of propodeum (fig. 123); vein 2-SR of fore wing straight; vein cu-a of hind wing reclivous (fig. 136); posterior margin of hind wing concave (but hardly in *vierecki*), more shortly setose than surrounding fringe (fig. 136); tarsal claws with large, rounded submedial lobe (fig. 129); hind femur slender, its length about 4 times the maximum width (fig. 134); hind tibia with subapical transverse row of spiny setae (fig. 134); no ventral row of setae at hind tarsus; 1st tergite without dorsal carinae (fig. 137); 2nd tergite with a narrow triangular area medio-basally (fig. 137); 2nd suture wide, straight and crenulate (fig. 137); 4th tergite protruding medio-posteriorly (fig. 137); 2nd—5th tergites with sharp lateral crease; medial length of 5th tergite about 0.6 times medial length (behind basal depression) of 4th tergite (fig. 123); 5th tergite nearly straight latero-apically (fig. 123); hypopygium large, acutely protruding beyond metasomal apex, medio-basally unsclerotized.

Distribution. — Indo-Australian: two species. The 2nd species (besides the type-species from Borneo) is *Ipbiaulax vierecki* Strand, 1911 (= *braconiformis* Strand, 1911, nec Szépligeti, 1904) from New Guinea according to Dr. D. Quicke (in litt.).

Plesiobracon carinatus Cameron, 1903 (figs. 123—137)

Plesiobracon carinata Cameron, 1903: 123; Shenefelt, 1978: 1717.

Lectotype, ♀, length of body 5 mm, of fore wing 5.8 mm.

Head. — Antennal segments 44, length of 3rd segment equal to 4th segment, length of 3rd and 4th segments both 1.9 times their width, penultimate segment 2.3 times its width (fig. 130); length of maxillary palp 0.8 times height of head; eye glabrous, not emarginate; length of eye in dorsal view 3.5 times temple; POL : Ø ocellus : OOL = 7 : 7 : 20; frons flat, except for a medial groove (fig. 132); face indistinctly punctulate and rather flat; clypeus flat and smooth; length of malar space equal to basal width of mandible.

Mesosoma. — Length of mesosoma 1.4 times its height; side of pronotum smooth, except for a crenulate groove medially; mesopleuron largely punctulate; episternal scrobe distinct and isolated; scutellum smooth; anterior half of propodeum punctulate, posteriorly smooth, long whitish setose.

Wings. — Fore wing: angle between 1-SR and C+SC+R 81°; r : 3-SR : SR1 = 5 : 17 : 31; 1-CU1 : 2-CU1 = 1 : 13; 2-SR : 3-SR : r-m = 10 : 17 : 6.

Legs. — Hind coxa smooth; length of femur, tibia, and basitarsus of hind leg 4, 8.2, and 6.8 times their width; length of spurs of hind tibia 0.30 and 0.35 times hind basitarsus.

Metasoma. — Length of 1st tergite 0.9 times its apical width, reticulate-rugose postero-medially, laterally with wide crenulate groove; spiracles directed dorsally; 2nd—5th tergites finally longitudinally rugose, 3rd—5th tergites with smooth apical rim (figs. 123, 137); 3rd tergite without lateral grooves; metasoma behind 5th tergite smooth; length of ovipositor sheath 1.32 times fore wing.

Colour. — Blackish-brown; middle of frons, temples dorsally, and vertex, dark brown; rest of head, fore leg, and metasoma ventro-basally, yellowish-brown; pterostigma and parastigma, dark brown; middle femur, tibia and tarsus, brown; palpi light yellowish; wing membrane subhyaline.

Lectotype in British Museum (Natural History), London: "Type", "BM. Type Hym., 3.c.603", "*Plesiobracon carinata* Cam., Type, Borneo" (in Cameron's handwriting), "Kuching, Feb. 3, 1902", "Cameron Coll. 1903—121". Lectotype here designated. In the Kuch-

ing Museum I examined 2 ♀ in the collection under "carinata": one specimen collected April 1, 1902, the 2nd specimen at May 24, 1903. Because of the date of capture of the 2nd specimen, this specimen is excluded from the type-series. The other ♀ is considered to be a paralectotype. It differs from the lectotype by a narrow antescutal depression.

Carinibracon gen. nov.

Type-species: *Carinibracon danielssoni* sp. nov.

Etymology: from "carina" (Latin for "keel") and "Bracon", because it is closely related to the genus *Bracon*, but it possesses several carinae (propodeum, 1st and 2nd tergites) which are normally absent in *Bracon*. Gender: masculine.

Diagnosis. — Head rounded posteriorly (fig. 107); apex of antenna without spine, setose (fig. 99); ventral carina of clypeus present, protruding (figs. 95, 103); propleuron without posterior flange (fig. 95); mesoscutum punctulate; notauli completely smooth (fig. 108); scutellar sulcus medium-sized, rather wide and crenulate (fig. 108); metanotum with short medial carina; propodeal spiracle round, near middle of propodeum (fig. 95); vein 2-SR of fore wing straight; 2nd submarginal cell of fore wing slender (fig. 98); vein cu-a of hind wing straight (fig. 104); posterior margin of hind wing nearly straight basally and evenly setose (fig. 104); tarsal claws with peculiar lamelliform lobe and with some pegs (fig. 100); hind femur robust, about 3.5 times its maximum width (fig. 102); hind tibia without subapical row of spiny setae (fig. 102); hind tarsus with distinct ventral row of setae; 1st tergite with dorsal carinae complete, meeting posteriorly, in front of strongly convex area (fig. 109); 2nd tergite with small subtriangular area medio-basally and with pair of weakly converging sublateral grooves (fig. 109); 2nd suture sinuate and crenulate (fig. 109); 4th tergite somewhat protruding medio-posteriorly; medial length of 5th tergite about 0.8 times medial length of 4th tergite behind basal depression (fig. 95); 5th tergite straight latero-apically (fig. 95); 2nd—6th tergites with sharp lateral crease; hypopygium large and acute apically (fig. 95).

Distribution. — Afrotropical: one species.

Carinibracon danielssoni sp. nov.
(figs. 94—109)

Holotype, ♀, length of body 4.7 mm, of fore wing 4.6 mm.

Head. — Antennal segments 35, length of 3rd segment 1.3 times 4th segment, length of 3rd and 4th segments 2.3 and 1.8 times their width, respectively, penultimate segment 1.7 times its width (fig. 99); length of maxillary palp 0.7 times height of head; eye glabrous and slightly emarginate (fig. 103); length of eye in dorsal view 1.8 times temple; POL : Ø ocellus : OOL = 3 : 3 : 7; frons nearly flat, coriaceous and with short groove near anterior ocellus (fig. 107); face largely coriaceous, but smooth above clypeus; length of malar space 0.8 times basal width of mandible.

Mesosoma. — Length of mesosoma 1.5 times its height; side of pronotum and mesopleuron smooth, but mesopleuron ventrally sparsely punctulate; episternal scrobe shallow (fig. 95); scutellum punctulate; surface of propodeum smooth and setose.

Wings. — Fore wing: angle between 1-SR and C+SC+R 70° (fig. 101); r : 3-SR : SR1 = 15 : 37 : 77; 1-CU1 : 2-CU1 = 2 : 25; 2-SR : 3-SR : r-m = 28 : 37 : 17.

Legs. — Hind coxa punctulate; length of femur, tibia and basitarsus of hind leg 3.5, 7.5 and 5 times their width, respectively; length of spurs of hind tibia 0.35 and 0.4 times hind basitarsus.

Metasoma. — Length of 1st tergite 0.8 times its apical width, largely smooth (fig. 109); 2nd tergite coarsely reticulate-rugose; 3rd—7th tergites finely rugulose, with narrow subapical transverse groove and posterior rim smooth (fig. 95); length of ovipositor sheath 0.8 times fore wing.

Colour. — Brownish-yellow; antenna (of scapus and pedicellus only outer side), pterostigma, veins, and ovipositor sheath, dark brown; wing membrane brownish.

Holotype in Entomological Museum, Lund: "Senegal, in forest, 1.5 km NE Djibélór, ca. 6.5 km SW Ziguinchor, 8.iii.1977. At light, 19.00—21.30. Loc. no. 23A, UTM 28PCJ575885", "Lund Univ., Syst. Dept. Sweden, Gambia/Senegal Febr.—March 1977, Cederholm, Danielsson, Larsson, Mireström, Norling, Samuels-son".

Note. — In existing keys the species runs to the genus *Cratocnema*, but *Cratocnema* differs e.g., by the presence of a dorsal carina at the clypeus. The descriptions of the *Cratocnema* spp. do not fit *C. danielssoni*.

It is a pleasure to me to dedicate this species to Mr. R. Danielsson (Lund), who has been very helpful in providing types and new taxa.

Kenema gen. nov.

Type-species: *Kenema quickei* sp. nov.

Etymology: name based on the locality of the type. Gender: feminine.

Diagnosis. — Head rounded posteriorly (fig. 117); apex of antenna with small spine (fig. 111); ventral carina of clypeus not differentiated (fig. 120); propleuron with small posterior flange (fig. 110); mesoscutum finely rugose (fig. 116); notauli only anteriorly distinct and finely crenulate (fig. 116), rest absent; scutellar sulcus narrow and finely crenulate (fig. 116); metanotum with complete longitudinal carina; propodeal spiracle small, round and in front of middle of propodeum (fig. 110); vein 2-SR of fore wing sinuate (fig. 114); 2nd submarginal cell of fore wing robust (fig. 114); vein cu-a of hind wing straight; posterior margin of hind wing straight and evenly setose (fig. 114); tarsal claws with small acute lobe (fig. 118); hind femur moderately robust (fig. 119); hind tibia without row of spiny setae; hind tarsus with ventral row of setae; 1st tergite with dorsal carinae united medially, but medially rather weak (fig. 121); 2nd tergite without medial area and with short longitudinal grooves (fig. 121); 2nd suture distinctly sinuate and crenulate; 4th tergite straight medio-posteriorly (fig. 122); medial length of 5th tergite (behind basal, crenulate groove) 1.3–1.5 times medial length of 4th tergite (figs. 110, 122); 5th tergite oblique latero-apically (fig. 110); 2nd–5th tergites with sharp (cariniform) lateral crease.

Distribution. — Afrotropical: two species. The 2nd species will be described in a forthcoming paper.

Kenema quickei sp. nov.

(figs. 110–122)

Holotype, ♂, length of body 6 mm, of fore wing 4.5 mm.

Head. — Antennal segments 52, length of 3rd segment 1.2 times 4th segment, length of 3rd and 4th segments 1.7 and 1.4 times their width, respectively, penultimate segment 1.4 times its width (fig. 111); length of maxillary palp 0.6 times height of head; length of eye in dorsal view 2.6 times temple; temple ruguloso-coriaceous; POL : Ø ocellus : OOL = 6 : 4 : 12; frons slightly convex, laterally rugose, medially coriaceous, and with shallow medial depression (fig. 117); stemmaticum comparatively strongly protruding (fig. 120); face transversely rugose; length of malar space equal to basal width of mandible.

Mesosoma. — Length of mesosoma 1.5 times its height; side of pronotum coriaceous, with some striae (fig. 110); mesopleuron coriaceous; episternal scrobe virtually absent; scutellum coriaceous; propodeum densely rugulose, medio-laterally shortly lamelliform and angularly protruding (fig. 110).

Wings. — Fore wing: angle between 1-SR and C+SC+R 61°; r-m distinctly sinuate and sclerotized (fig. 114); r : 3-SR : SR1 3 = 7 : 10 : 39; 2-SR : 3-SR : r-m = 11 : 10 : 11.

Legs. — Hind coxa coriaceous; length of femur, tibia, and basitarsus of hind leg 3.9, 8.2, and 5.2 times their width, respectively; length of spurs of hind tibia both 0.4 times hind basitarsus.

Metasoma. — Length of 1st tergite 0.4 times its apical width, basally smooth, behind dorsal carinae distinctly rugose; 2nd tergite rather coarsely reticulate; 3rd tergite reticulate-rugose; 4th and 5th tergites densely coriaceous-rugulose, with incomplete lateral grooves (fig. 110); 6th tergite shortly setose, exposed, smooth; 7th tergite glabrous; 2nd–5th tergites with acute lateral crease.

Colour. — Brownish-yellowish; antenna (except annellus) black; wing membrane slightly infuscated (but more pigmented near parastigma; fig. 115); anterior margin of fore wing (except base) blackish, rest of pterostigma and most veins, brown.

Holotype in Quicke Collection, Nottingham: "Kenema, Sierra Leone, Sept. 1981, D. Quicke". I am pleased to name this species after Dr. D. Quicke, who collected several interesting taxa in Africa.

Note. This new genus resembles the genus *Soter* Saussure, 1892 (= *Odontogaster* Szépligeti, 1906, **syn. nov.**), but *Soter* does not belong to the *Plesiobracon* group because it has the mesoscutum largely glabrous. Additionally it has the mesoscutum smooth, the 2nd submarginal cell is long, the 2nd tergite has converging grooves, the 5th tergite is serrate, and the spiracle of the propodeum is submedially situated.

ACKNOWLEDGEMENTS

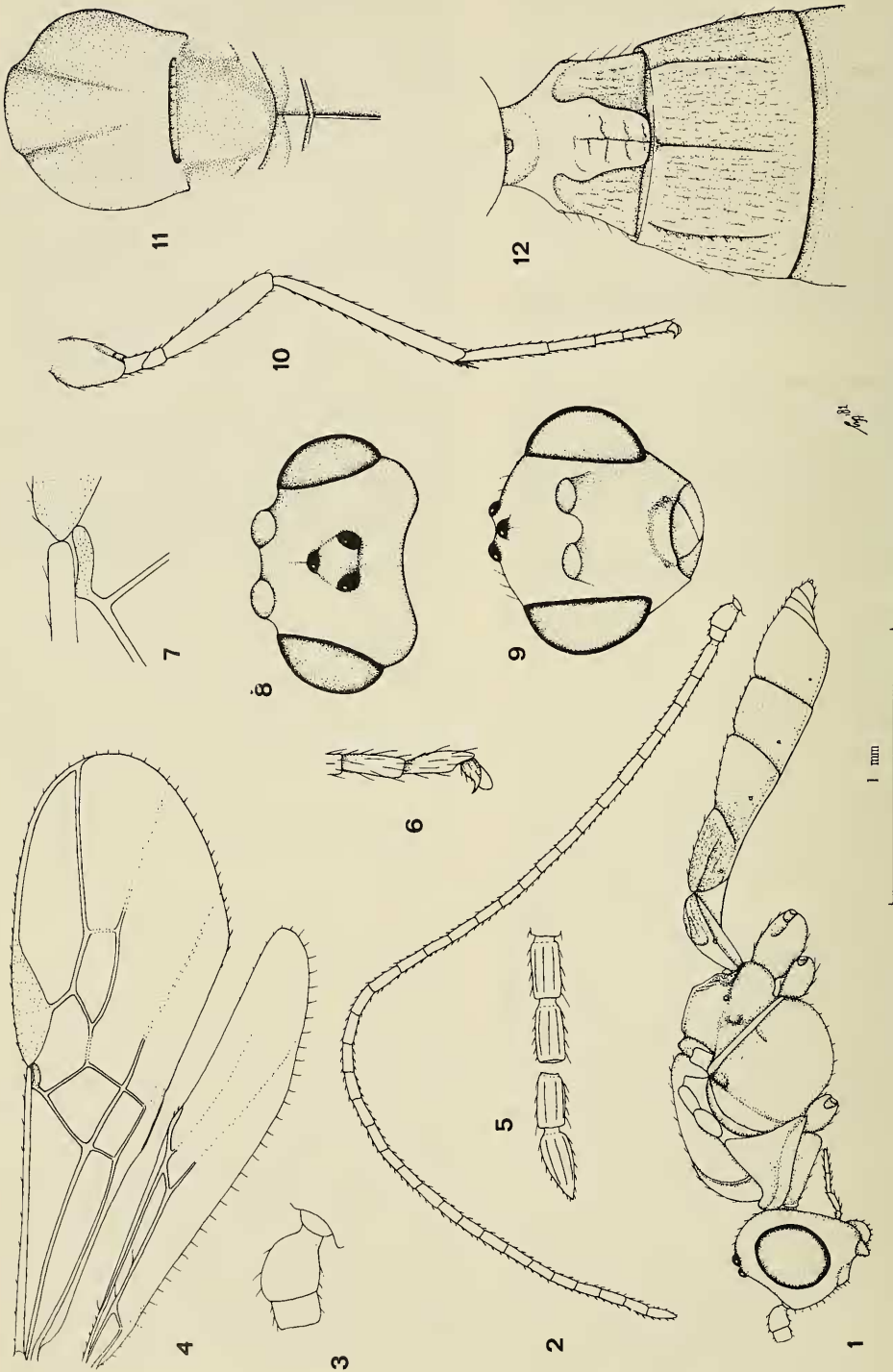
I wish to express my gratitude to the following persons for the loan of types and of new taxa, and for assistance during visits: Mr. R. Danielsson (Lund), Dr. J. Decelle (Tervuren), Mr. A. A. Hamid (Kuching), Dr. K.-J. Hedqvist (Stockholm), Mr. T. Huddleston (London), Mlle Dr. S. Kelner-Pillault (Paris), † Dr. E.

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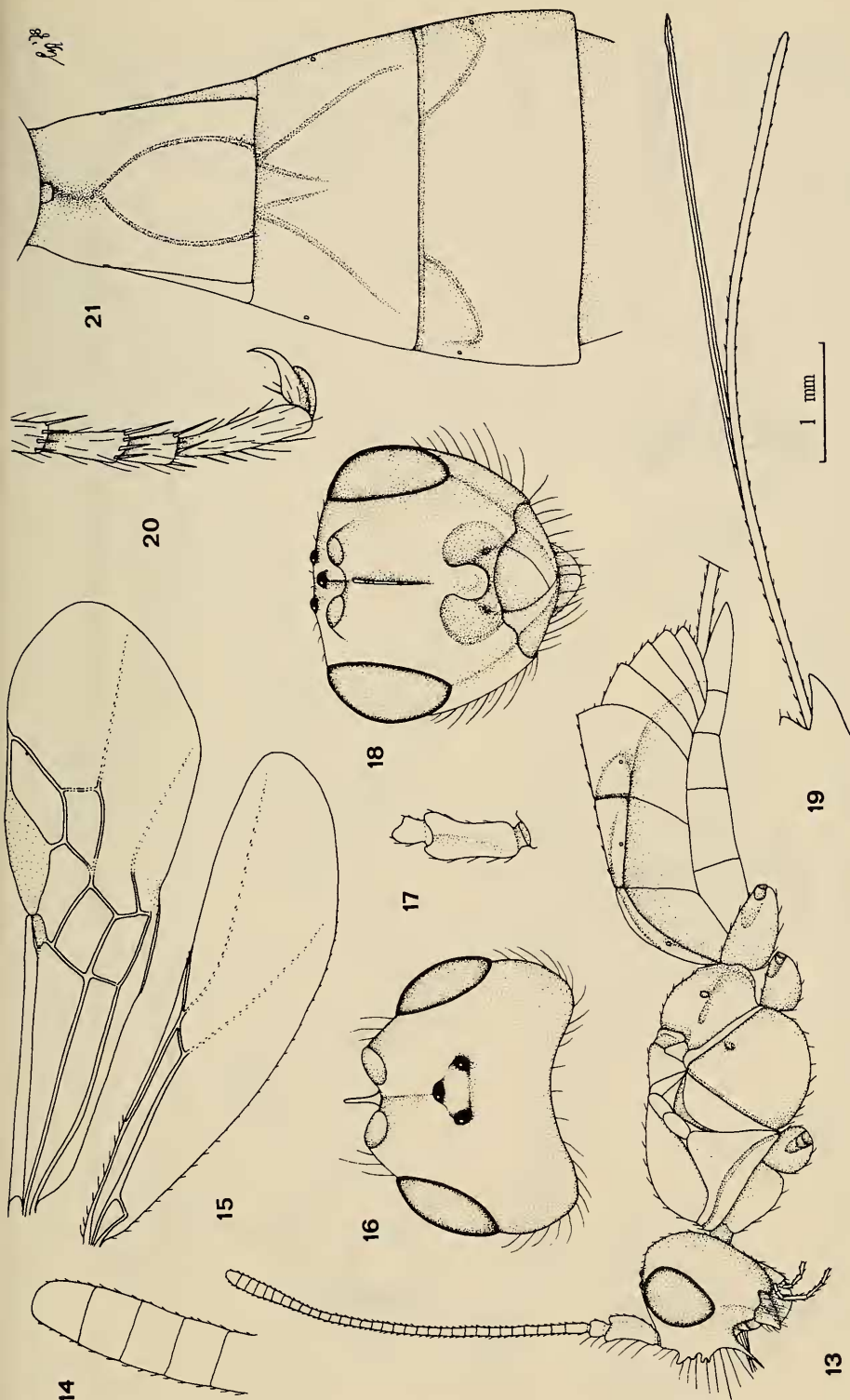
The Uyttenboogaart-Eliassen Stichting financially supported the visit to the Kuching Museum (Serawak).

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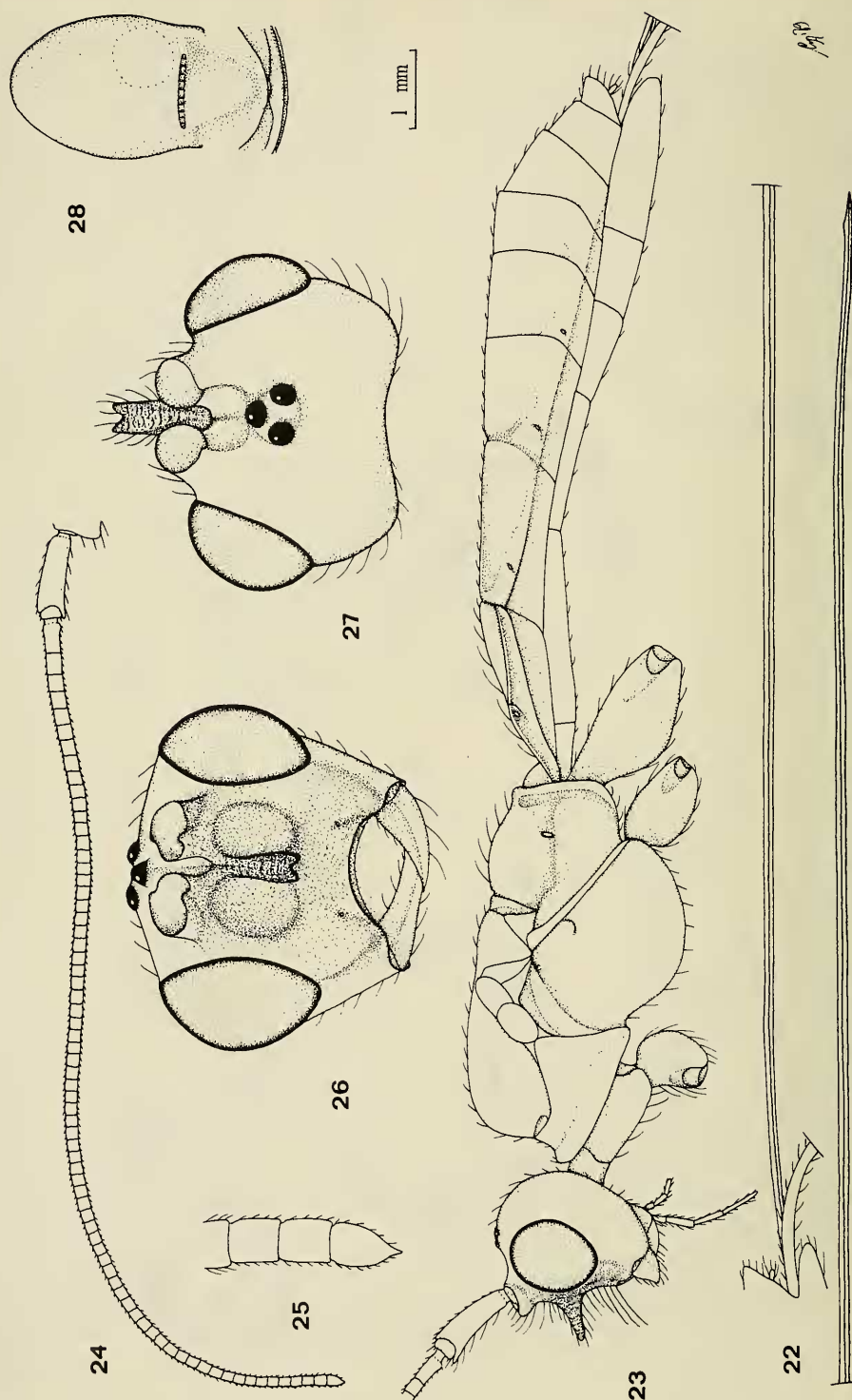
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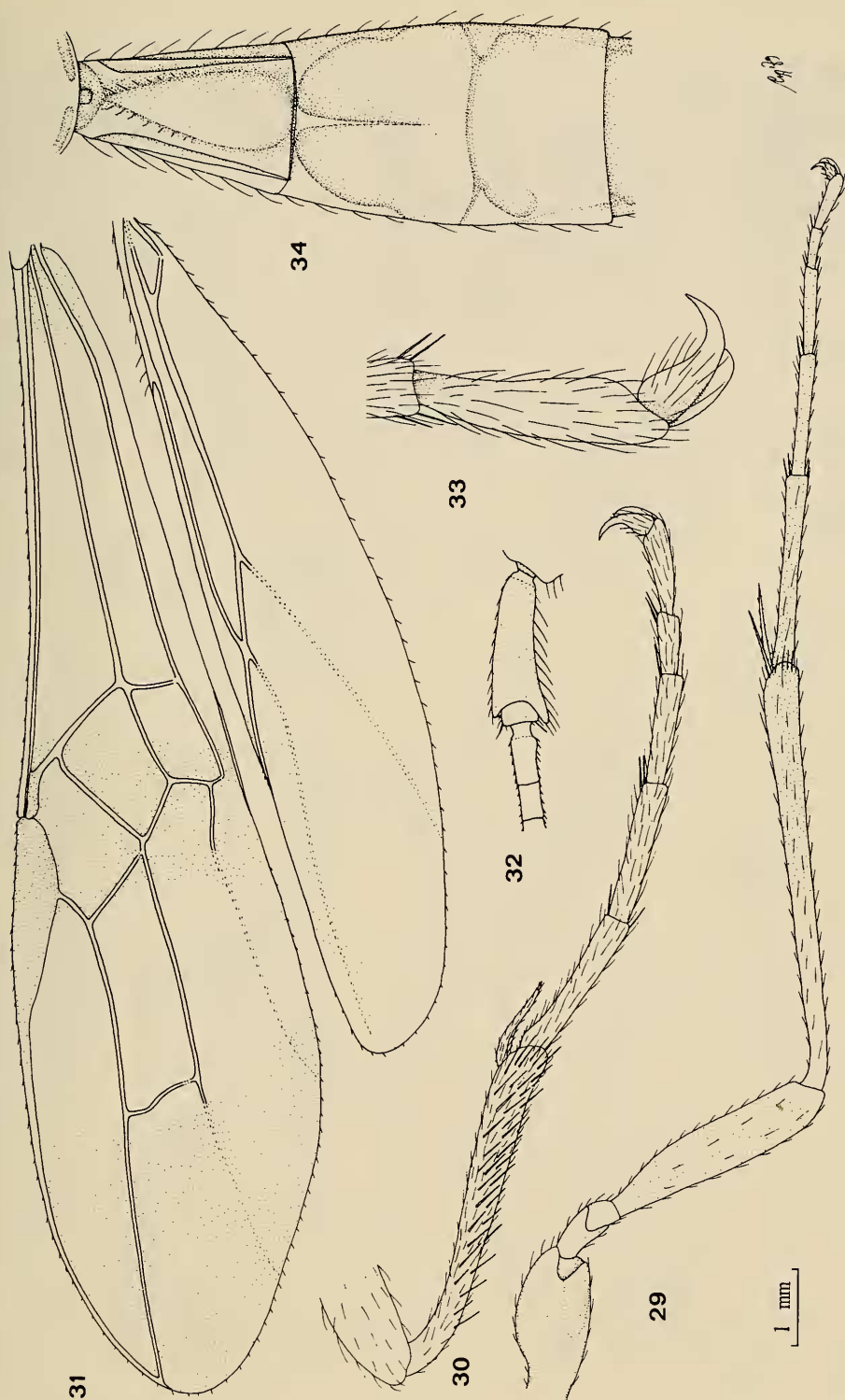
Figs. 1—12. *Adeshoides asulcatus* sp. nov., holotype, ♂. 1, habitus, lateral aspect; 2, antenna, lateral aspect; 3, scapus and pedicellus, outer aspect; 4, wings; 5, apical segments of antenna; 6, hind claw; 7, detail of vein 1-SR of fore wing; 8, head, dorsal aspect; 9, head, frontal aspect; 10, hind leg; 11, mesosoma, dorsal aspect; 12, 1st and 2nd metasomal tergites, dorsal aspect. 1, 2, 4, 10: scale-line (= 1 ×); 3, 5—7: 2.5 ×; 8, 9, 11, 12: 1.6 ×.



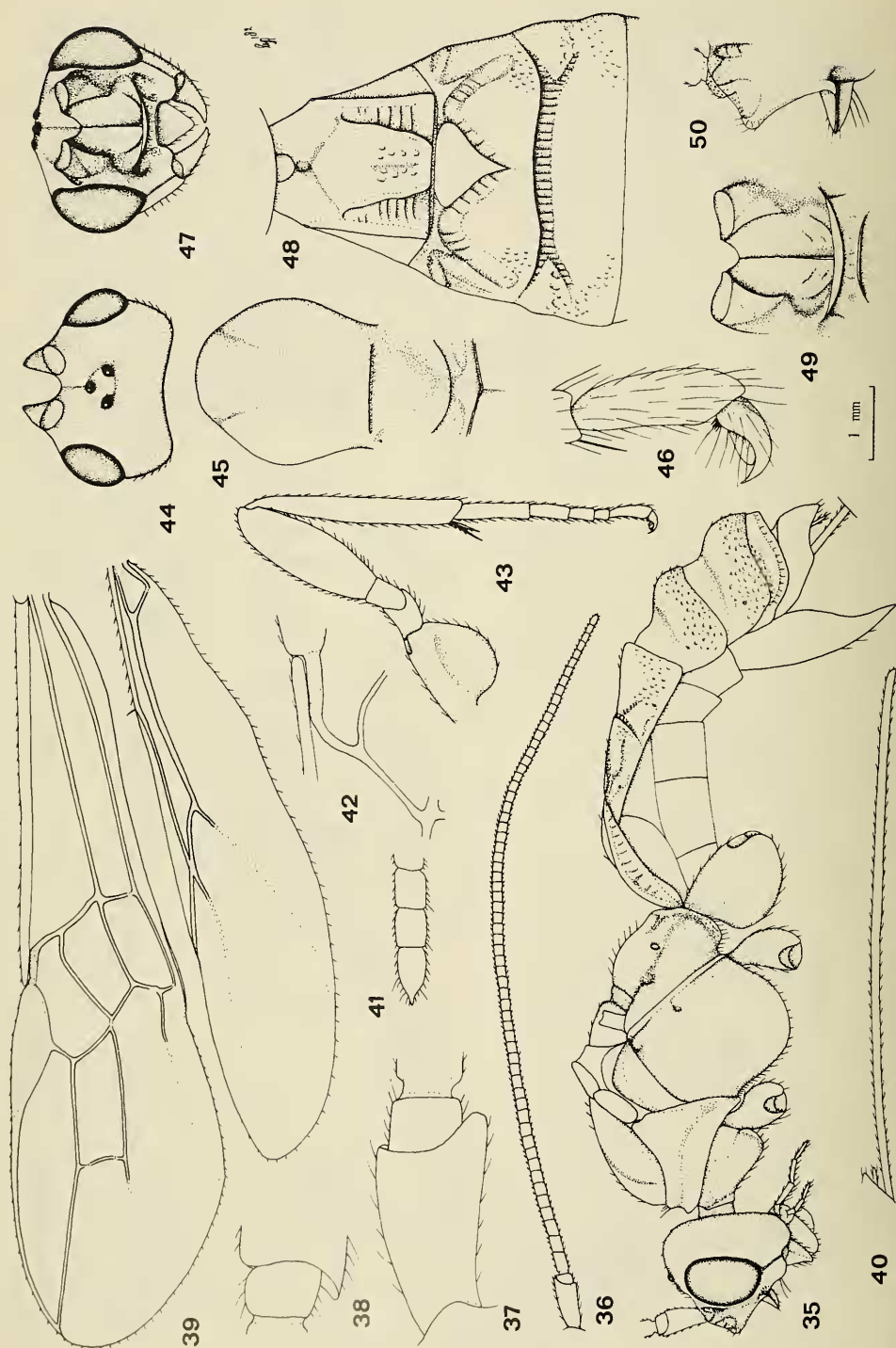
Figs. 13—21. *Vicaroviella deserticola* Tobias, paratype, ♀. 13, habitus, lateral aspect; 14, apex of antenna; 15, wings; 16, head, dorsal aspect; 17, scapus and pedicellus, frontal aspect; 18, head, frontal aspect; 19, ovipositor; 20, fore claw; 21, 1st—3rd metasomal tergites. 13, 15, 19: scale-line (= 1 ×); 16—18, 21: 2 ×; 14, 20: 5 ×.



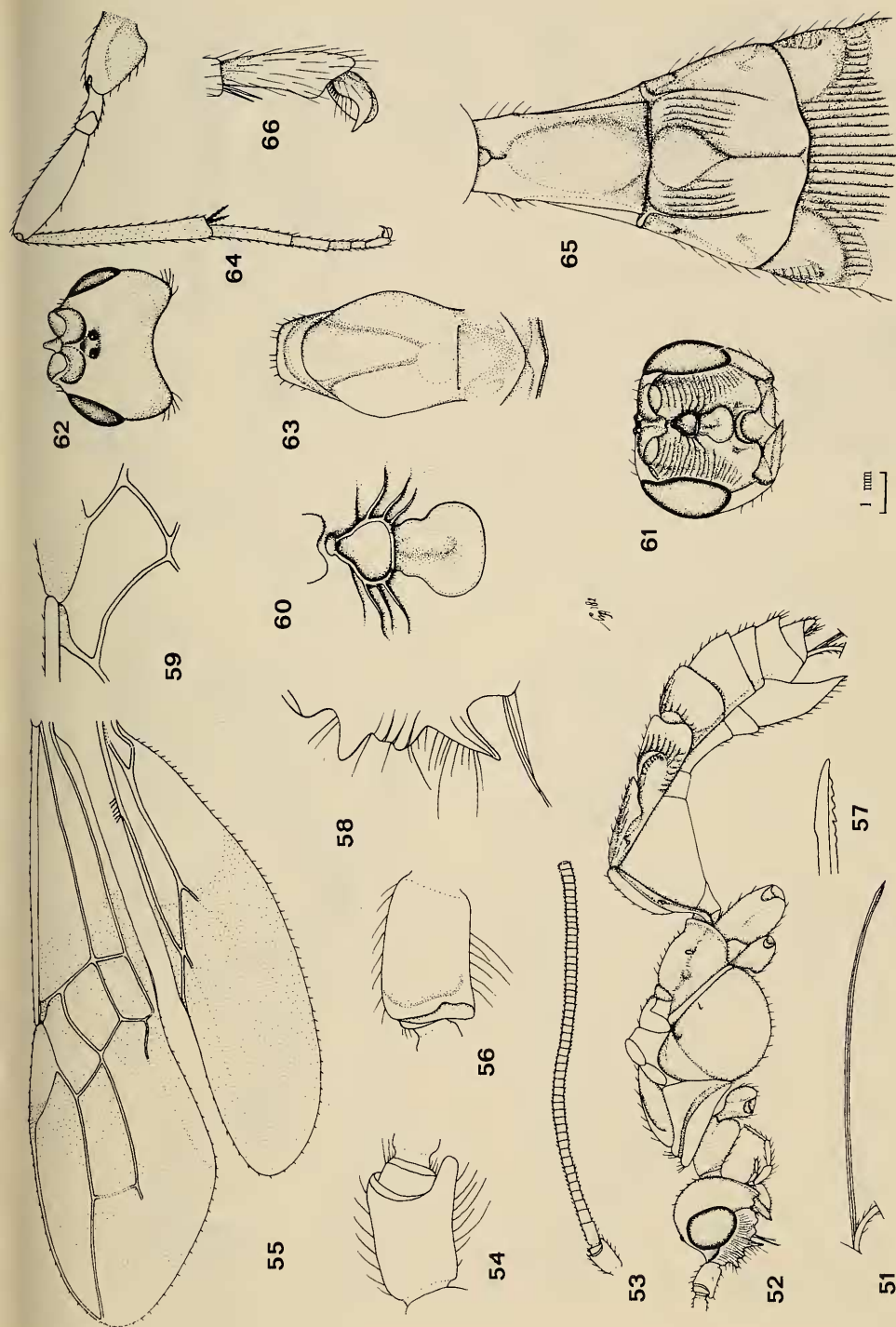
Figs. 22—28. *Lasiophorus lanceolator* (Fabricius), lectotype, ♀. 22, habitus, lateral aspect; 24, antenna; 25, apex of antenna; 26, head, frontal aspect; 27, head, dorsal aspect; 28, thorax, dorsal aspect. 22—24: scale-line ($= 1 \times$); 25: $5 \times$; 26, 27: $2 \times$; 28: $1.2 \times$.



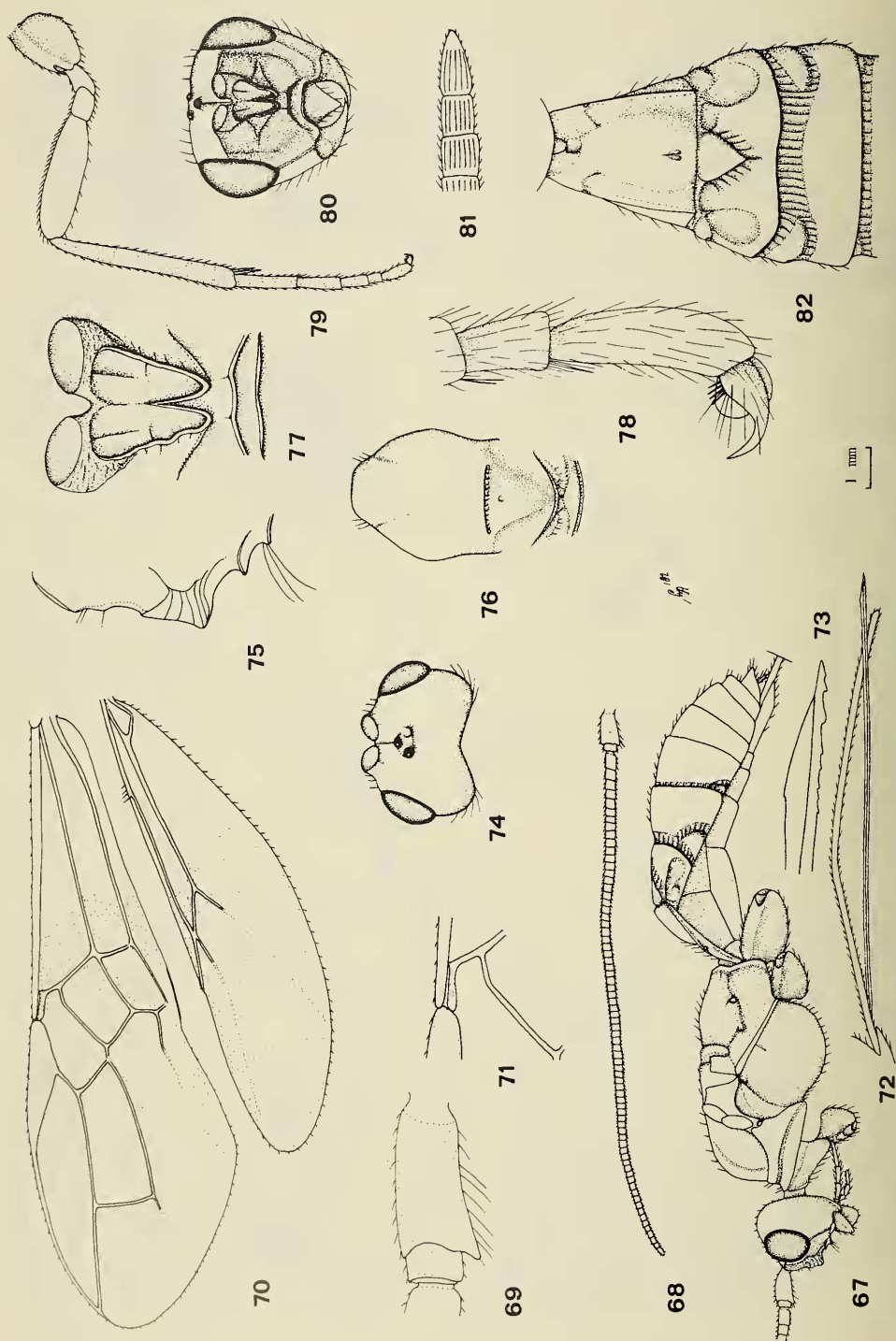
Figs. 29—34. *Lasiophorus lanceolator* (Fabricius), lectotype, ♀. 29, hind leg; 30, fore leg, frontal aspect; 31, wings; 32, scapus and pedicellus, outer aspect; 33, hind claw; 34, 1st—3rd metasomal segments, dorsal aspect. 29, 31: scale-line ($= 1 \times$); 30, 32: $2 \times$; 33, 34: $1.2 \times$.



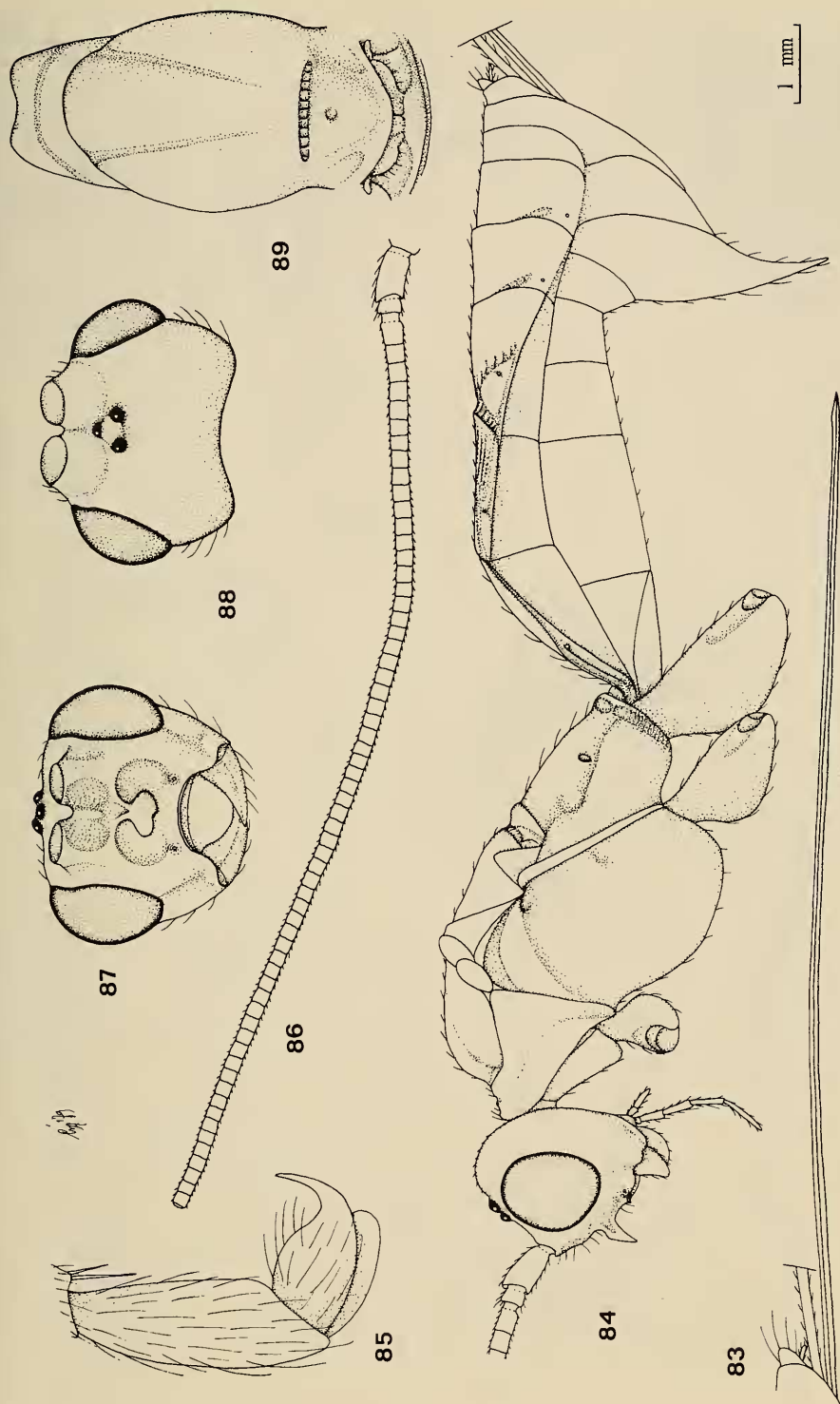
Figs. 35—50. *Malagopsis grandidieri* (Szépligeti), holotype, ♀. 35, habitus, lateral aspect; 36, antenna; 37, scapus, outer aspect; 38, apex of scapus, inner aspect; 39, wings; 40, ovipositor sheath; 41, apex of antenna; 42, detail of veins 1-M and 1-SR of fore wing; 43, hind leg; 44, head, dorsal aspect; 45, thorax, dorsal aspect; 46, hind claw; 47, head, frontal aspect; 48, 1st—3rd metasomal tergites, dorsal aspect; 49, detail of face, frontal aspect; 50, lateral aspect of face. 35, 36, 39, 40, 43: scale-line ($= 1 \times$); 37, 38, 41, 46: $5 \times$; 42, 49, 50: $2 \times$; 44, 45, 47, 48: $1.3 \times$.



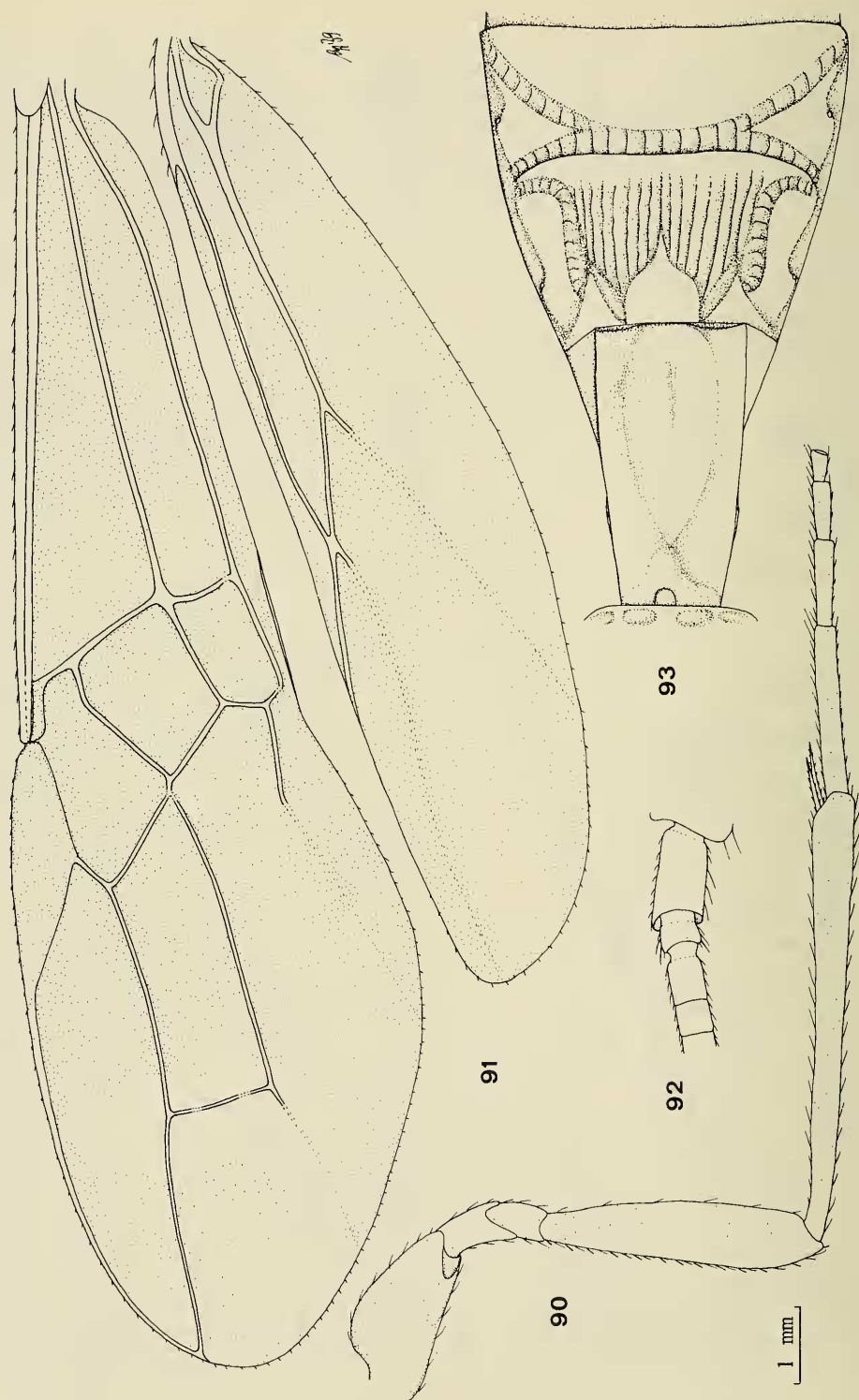
Figs. 51—66. *Deltaphyma borstoki* sp. nov., holotype, ♀. 51, antenna; 52, habitus, lateral aspect; 53, scapus, outer aspect; 54, scapus, inner aspect; 55, wings; 56, scapus, frontal aspect; 57, apex of ovipositor; 58, face, frontal aspect; 59, detail of veins 1-SR and 1-SR+M of fore wing; 60, head, dorsal aspect; 61, head, frontal aspect; 62, head, dorsal aspect; 63, thorax, dorsal aspect; 64, hind legs; 65, 1st and 2nd metasomal tergites, dorsal aspect; 66, hind claw. 51, 52, 54, 55, 64: scale-line (= 1 ×); 53, 56—58, 60, 66: 5 ×; 59, 61—63, 65: 2 ×.



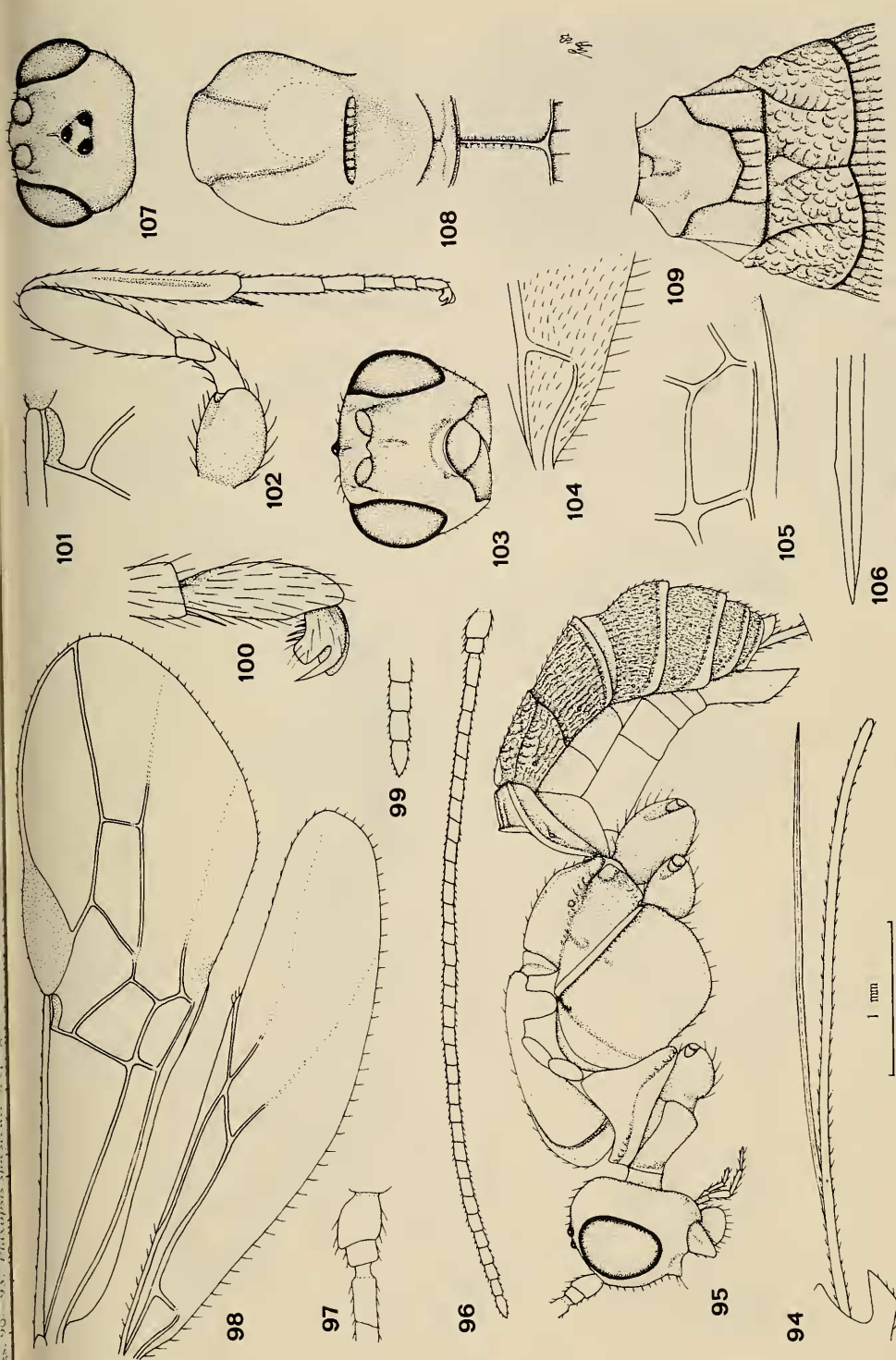
Figs. 67—82. *Zanzopsis liogaster* (Szépligeti), holotype, ♀. 67, habitus, lateral aspect; 68, antenna, lateral aspect; 69, scapus, outer aspect; 70, wings; 71, detail of veins 1-SR and 1-SR+M of fore wing; 72, ovipositor; 73, apex of ovipositor; 74, head, dorsal aspect; 75, face, lateral aspect; 76, thorax, lateral aspect; 77, face, frontal aspect; 78, hind leg; 79, hind leg; 80, head, frontal aspect; 81, apex of antenna; 82, 1st—3rd metasomal tergites, dorsal aspect. 67, 68, 70, 72, 79: scale-line (= 1 mm); 69, 75, 77: 4.2 ×; 71, 74, 76, 80, 82: 2 ×; 73, 78, 81: 6.5 ×.



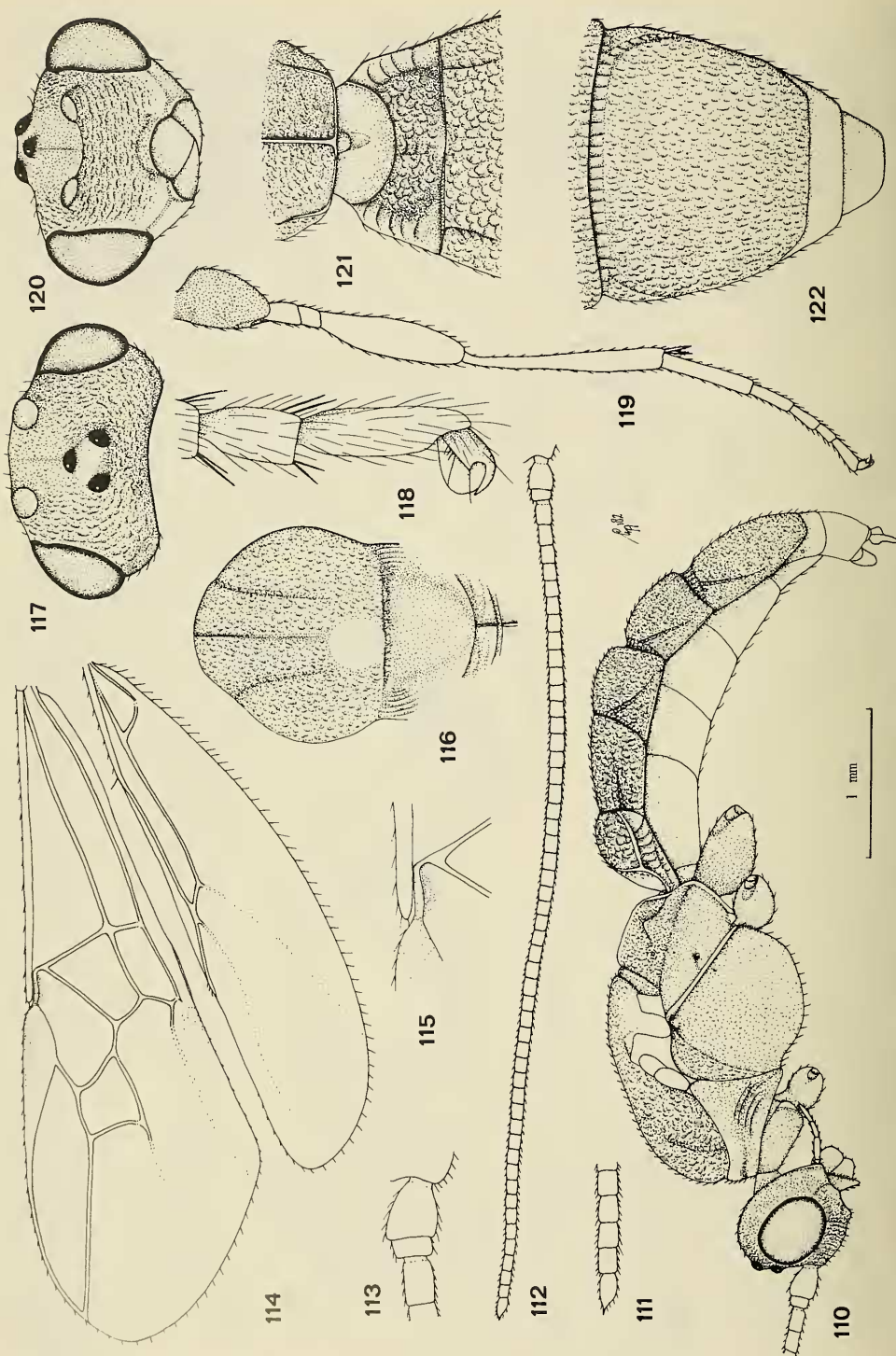
Figs. 83—89. *Plaxopsis sjoestedti* Szépligeti, holotype, ♀. 83, habitus, lateral aspect; 84, thorax, dorsal aspect; 85, middle claw; 86, antenna; 87, head, frontal aspect; 88, head, dorsal aspect; 89, thorax, scale-line (1 ×); 85: 5 ×; 87—89: 1.3 ×.



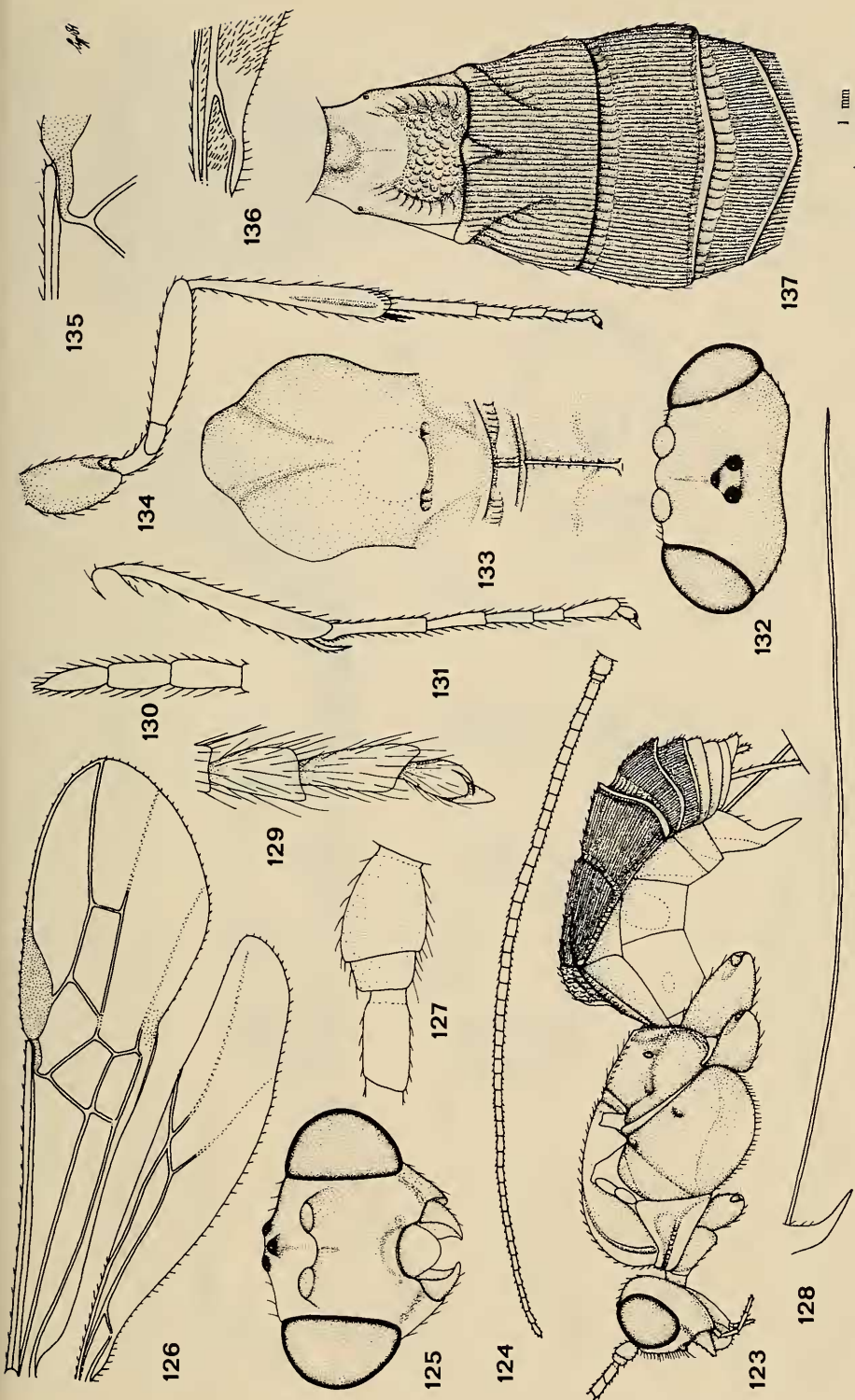
Figs. 90—93. *Plaxopsis sjoestedti* Szépligeti, holotype, ♀. 90, hind leg; 91, wings; 92, 4 basal segments of antenna, outer aspect; 93, 1st—3rd metasomal tergites, dorsal aspect. 90, 91: scale-line (= 1 ×); 92: 2 ×; 93: 1.3 ×.



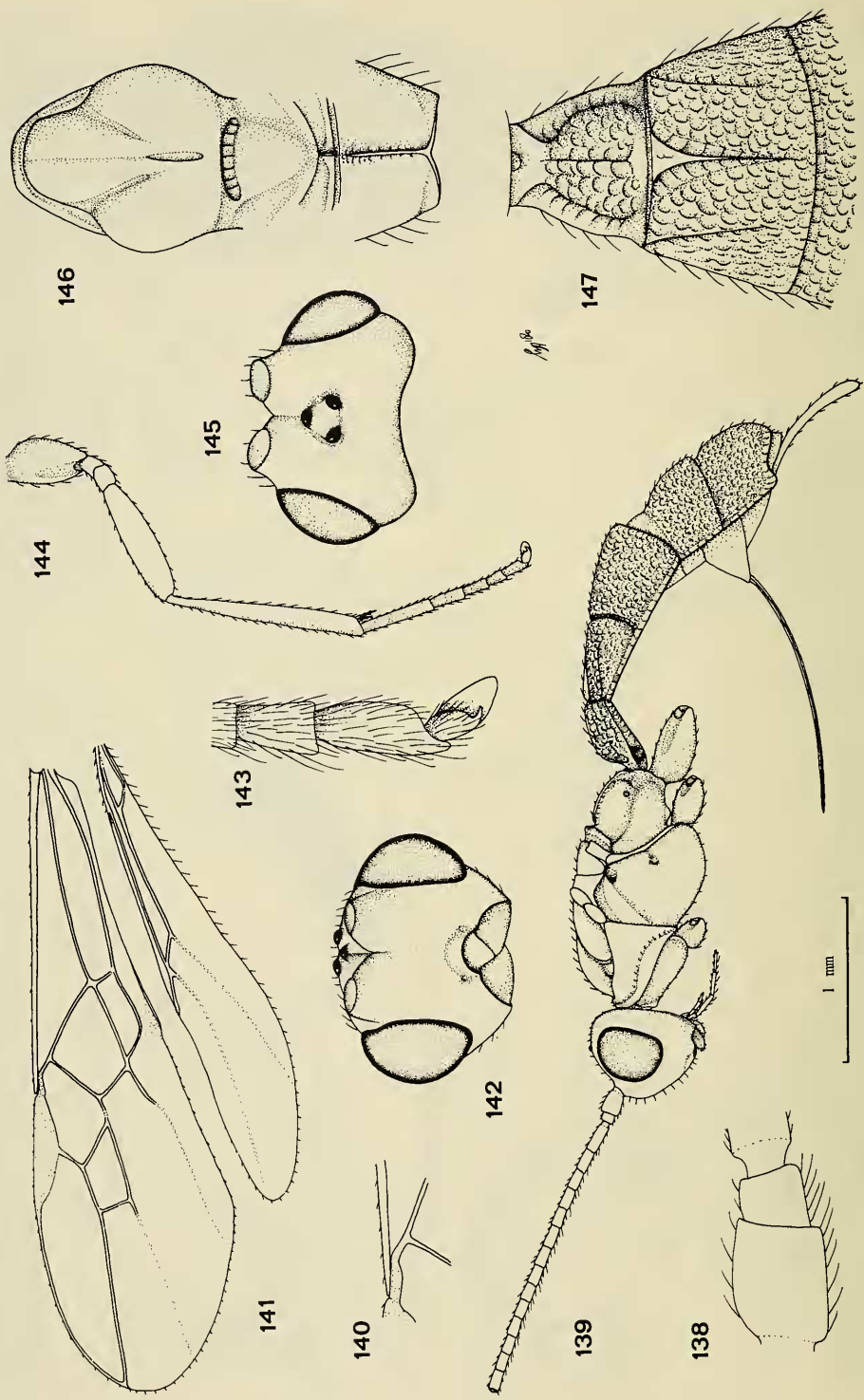
Figs. 94–109. *Carinibracon danielssoni* sp. nov., holotype, ♀. 94, habitus, lateral aspect; 95, habitus, lateral aspect; 96, antenna; 97, 3 basal segments of antenna; 98, wings; 99, apex of antenna; 100, hind leg; 101, detail of vein 1-SR of fore wing; 102, head, dorsal aspect; 103, head, frontal aspect; 104, base of hind wing; 105, detail of 1st subcell of fore wing; 106, apex of ovipositor; 107, head, dorsal aspect; 108, mesosoma, dorsal aspect; 109, 1st and 2nd metasomal tergites, dorsal aspect. 94–96, 98, 101, 102: scale-line (= 1 ×); 97, 99, 104, 105: 2 ×; 100, 106: 5 ×; 103, 107–109: 1.2 ×.



Figs. 110—122. *Kenema quickei* sp. nov., holotype, ♂. 110, habitus, lateral aspect; 111, apex of antenna; 112, antenna; 113, 3 basal segments of antenna; 114, wings; 115, details of vein 1-SR of fore wing; 116, thorax, dorsal aspect; 117, head, dorsal aspect; 118, hind leg; 119, hind claw; 120, head, frontal aspect; 121, propodeum and 1st metasomal tergite, dorsal aspect; 122, apex of metasoma (= 5th—7th tergites), dorsal aspect. 110, 112, 114, 119: scale-line (= 1 ×); 111, 113, 115: 2 ×; 116, 117, 120—122: 1.4 ×; 118: 5 ×.



Figs. 123—137. *Plesiobracon carinatus* Cameron, lectotype, ♀. 123, habitus, lateral aspect; 124, antenna; 125, head, frontal aspect; 126, wings; 127, scapus, outer aspect; 128, ovipositor; 129, hind claw; 130, apex of antenna; 131, fore tibia and tarsus; 132, head, dorsal aspect; 133, mesosoma, dorsal aspect; 134, hind leg; 135, detail of vein 1-SR of fore wing; 136, base of hind wing; 137, 1st—4th metasomal tergites. 123, 124, 126, 128, 133: scale-line ($= 1 \times$); 125, 131—133, 135, 136: $2 \times$; 127, 129, 130: $5 \times$; 137: $1.4 \times$.



Figs. 138—147. *Adesha albolineata* Cameron, holotype, ♀. 138, scapus, outer aspect; 139, habitus, lateral aspect; 140, detail of vein 1-SR of fore wing; 141, wings; 142, head, frontal aspect; 143, hind leg; 144, hind leg; 145, head, dorsal aspect; 146, mesosoma, dorsal aspect; 147, 1st and 2nd metasomal tergites, dorsal aspect. 138, 143: 5 ×; 139, 141, 144: scale-line (= 1 ×); 140, 142, 145—147: 2 ×.